

Fukushima-is-still-news

- vol. 13 –

**Vested Interests -
Transparency – Corruption,
2017-2019**



Odile Girard



Référence bibliographique

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INTRODUCTION

J'ai « découvert » l'écologie au début des années 70, croisant dans le même temps la pollution, les luttes paysannes et la malbouffe, la médecine qui avait (déjà) perdu son âme, les mouvements sociaux et bien sûr le nucléaire qui a occupé une grande partie de ma vie.

Après la catastrophe de mars 2011 au Japon, j'ai suivi chaque jour une partie des grands journaux japonais anglophones pour essayer de sauvegarder un maximum d'articles ayant trait à Fukushima. L'idée était de conserver une sorte d'archive accessible à tous, qu'ils soient écrivains, journalistes ou tout simplement intéressés.

Le blog « [Fukushima-is-still-news](http://fukushima-is-still-news.com) » a été poursuivi jusqu'en 2019. Ci-dessous, la conclusion parue le jour où j'ai décidé d'arrêter mon blog.

End of March 2019: Time to stop this blog

29 Mars 2019

Rédigé par fukushima-is-still-news et publié depuis Overblog

I have been collecting and spreading information on the Fukushima disaster for more than 8 years.

More than ever I am convinced that the name of my blog « Fukushima-is-still-news » was aptly chosen. Or perhaps i should have called it « Fukushima should still be news ». What i'm getting at is that i know the disaster is going on and we cannot simply forget Fukushima and turn the page. But the mode of action I chose 8 years ago has its limits and it is time for me to stop this blog.

I don't want the contents to be lost, so I will try and publish the lot with the Éditions de Fukushima so that the information remains available online.

Good bye for now. I am not doing a disappearing act. I'm still there tracking what's going on in the world of nukes.

C'est maintenant chose faite. Le blog *fukushima-is-still-news* est désormais disponible aux Éditions de Fukushima. Une fois de plus merci à mon ami Pierre, qui m'a convaincue à l'époque de tenir ce blog et m'a aidée à le lancer.

Odile Girard

Avertissement

La mise en page de dizaines de milliers de pages étant trop fastidieuse, nous avons préféré dans un premier temps éditer les volumes 7 à 16 sans mise en page particulière plutôt que de risquer de ne jamais les éditer. Chacun de ces livres est donc, dans la version présente, constitué des articles du blog copiés de manière brute. Les articles sont disposés a priori chronologiquement. Nous nous excusons donc pour l'absence de table des matières. La recherche peut toutefois facilement être effectuée par mot clé avec la fonction CTRL + F

Le présent volume est le treizième d'une collection de 16 ouvrages :

Vol. 1 : Daiichi Nuclear Plant (2012-2014)

Vol. 2 : Daiichi Nuclear Plant (2015-2019)

**Vol. 3 : Radioactive Fallout And Waste,
No.4 Fuel Removal,
Nuclear Workers,
and UN Conference**

Vol. 4 : Nuke Safety (2012-2015)

Vol. 5 : Nuke Safety (2016-2019)

**Vol. 6 : Reprocessing,
Storage Nuclear Waste,
and Decommissioning**

**Vol. 7 : Practical Problems For The Japanese Population
2012-2014**

**Vol. 8 : Practical Problems For The Japanese Population
2015-2017**

**Vol. 9 : Practical Problems For The Japanese Population
2018-2019**

**Vol. 10 : Health Effects Of Radiation
and Collateral Effects**

Vol. 11 : Anti-Nuclear Activity-Opinion

Vol. 12 : Vested Interests - Transparency - Corruption (1)

Vol. 13 : Vested Interests - Transparency - Corruption (2)

Vol. 14 : Nuclear Weapons

**Vol. 15 : Nuclear Future,
Start Again,
New Techniques - Alternatives & Renewables,
Olympics**

Vol. 16 : Books & Films

Heavy costs for Tepco customers

December 30, 2016

<http://www.japantimes.co.jp/news/2016/12/30/business/tepco-customers-shelled-%c2%a52-4-trillion-nuke-related-costs-since-2012-rate-hike/#.WGYVDX2Dmid>

Tepco customers shelled out ¥2.4 trillion in nuke-related costs since 2012 rate hike

JJI

Customers of Tokyo Electric Power Company Holdings Inc. have spent over ¥2.4 trillion to cover its nuclear power-related costs since it raised electricity charges in September 2012, it was learned Thursday.

Such costs include those necessary to maintain nuclear power plants owned by Tepco and to deal with the March 2011 triple meltdown at the company's Fukushima No. 1 nuclear plant.

According to materials held by Tepco, the company included ¥601.4 billion in annual nuclear power-related expenses in overall costs when it raised the electricity charges.

The expenses on nuclear power operations include ¥47.2 billion for measures related to the Fukushima plant, including outsourcing radiation control-related work and inspecting and maintaining equipment to handle radioactive water.

The amount also covers the costs of the clerical work of handling applications for damages from people affected by the nuclear disaster, totaling ¥25.9 billion.

Tepco set aside ¥56.7 billion as resources to repay damages that the Japanese government paid on behalf of the company and ¥41.4 billion in depreciation costs for two reactors at the Fukushima No. 1 nuclear plant that have been decommissioned as well as for all the four reactors at the Fukushima No. 2 nuclear plant, which Fukushima Prefecture and others want decommissioned.

The nuclear power-related costs are expected to continue to grow because the company has been unable to carry out its plan to restart any of its reactors. When it raised the electricity charges in September 2012, the company assumed that the share of nuclear power in its overall electricity supply would fall to 7 percent from 22 percent.

Tepco plans to restart two reactors at its Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture. But the fate of the company's plan is not known yet, partly as the Niigata governor, elected in October, opposes their restart.

The industry ministry plans to have former Tepco customers who have switched to other suppliers shoulder part of Tepco's nuclear power-related costs, starting as early as fiscal 2020.

Toshiba burning cash

December 30, 2016

Toshiba burning through cash, running out of fixes to plug nuclear hole

<http://www.japantimes.co.jp/news/2016/12/30/business/corporate-business/toshiba-burning-cash-running-fixes-plug-nuclear-hole/#.WGYUOn2Dmic>

by Makiko Yamazaki

Reuters

Faced with the prospect of a multi-billion-dollar writedown that could wipe out its shareholders' equity, Japan's Toshiba is running out of fixes: it is burning cash, cannot issue shares and has few easy assets left to sell.

The Tokyo-based conglomerate, which is still recovering from a \$1.3 billion accounting scandal in 2015, dismayed investors and lenders again this week by announcing that cost overruns at a U.S. nuclear business bought only last year meant it could now face a crippling charge against profit.

Toshiba says it will be weeks before it can give a final number, but a writedown of the scale expected — as much as ¥500 billion (\$4.3 billion), according to one source close to Toshiba — would leave the group scrambling to plug the financial hole and keep up hefty investments in the competitive memory chip industry, which generates the bulk of its operating profit.

Shareholder equity, which represents its accumulated reserves, stood at ¥363.2 billion at the end of September, already just 7.5 percent of total assets.

Toshiba cannot raise cash by issuing shares because of restrictions imposed by the stock exchange after last year's scandal. One source close to the matter said Toshiba had been considering a share issue of around ¥300 billion, but the imminent lifting of those restrictions is now unlikely.

Private equity funding could be an option, but financial sources and investors said Toshiba would likely be forced to sell off more assets and stakes, months after having sold its two most easily marketable businesses: white goods and medical devices.

"Toshiba's immediate problem is that it is burning cash at an alarming rate, and this will be more than challenging," said Ken Courtis, chairman of Starfort Investment Holdings.

"I see little option but to sell a slew of noncore assets."

Its loss-making PC and TV businesses would be poor candidates for sale, while its many cross-shareholdings are unlikely to fetch enough.

"Toshiba doesn't have many saleable assets in hand," Standard & Poor's analyst Hiroki Shibata said after the ratings agency downgraded Toshiba.

"It has mostly sold assets which have big price tags or that could easily find buyers already. It would be difficult to secure big funds through asset sales."

One source in the semiconductor industry said Toshiba could revive plans to list a slice of the memory chip business, which though highly profitable burns through cash for reinvestment.

"Toshiba will probably need to sell 30 to 40 percent of the NAND business in an IPO to secure enough cash," the source said, adding China's aggressive drive into NAND flash memory chips could make the timing reasonable.

The group has already said it could reconsider the "positioning" of its nuclear business, deemed core last year, and has signaled it could trim an 87 percent stake.

Toshiba has said it will consider a capital strategy, but has given no details.

For now, creditor banks are expected to step into the liquidity breach, betting on Toshiba's growing chip business — though they were blindsided by the news and expressed concerns over continued governance and disclosure issues.

Some bankers had been on a factory tour with Toshiba on the day before the announcement, two of the banking sources said. They were told about the writedown that night.

Two days later, Toshiba's top executives, including Chief Executive Satoshi Tsunakawa, were asking for help.

"We really need a proper explanation of how, and to what extent, President Tsunakawa came to know of this," said an executive at one of Toshiba's regular bankers.

"It just defies common sense that this would come out only now about a deal done a year ago."

Just last month, Toshiba raised its annual profit forecast, thanks to strong demand for its NAND flash memory chips.

Bankers and analysts said the latest shock should at least push Toshiba to resolve long-standing headaches like its poor disclosure and governance, and could force it to offload cross-shareholdings.

One Toshiba shareholder estimated that the book value of all its cross-shareholdings would be about \$3.2 billion, and it could get more than that based on past experience.

Sale options would include its roughly 50 percent stakes in Toshiba Plant Systems and Services and Toshiba Tec, both worth around \$670 million at current market prices, according to Thomson Reuters data.

"If the company wants to survive, it needs to go through a 'scrap-and-build' process," said Norihiro Fujito, senior investment strategist at Mitsubishi UFJ Morgan Stanley Securities.

"Right now, even if banks are assisting, it's like they are throwing their money down the drain."

Nuke world remains "gloomy"

26.12.2016_No255 / News in Brief

Nuclear Expenditure Increases In Japan, But Sentiment Remains Gloomy

<http://www.nucnet.org/all-the-news/2016/12/26/nuclear-expenditure-increases-in-japan-but-sentiment-remains-gloomy>

Comment & People

26 Dec (NucNet): Nuclear-related expenditure by Japan's power utilities increased by \$3.6bn to \$19bn in the fiscal year that ended in March 2016 as they invested in measures to meet new regulatory standards introduced after the March 2011 Fukushima earthquake and tsunami, a survey by the Japan Atomic Industrial Forum (Jaif) has shown. The increase of 23% accounted for 12% of total expenditure of \$157.7bn. Capital investment in equipment and facilities rose by \$600m to \$4.5bn, accounting for 23% of the total. Jaif said it had surveyed 397 companies operating in the nuclear energy industry. Jaif received responses from 266 companies – 11 utilities, 244 mining and manufacturing firms, and 11 trading companies. Most respondents described business sentiment during the fiscal year under review as "bad" with sales unchanged or down on the previous year. Some saw this situation prevailing during the current fiscal year from April 2016 to March 2017. Many said the nuclear shutdown in Japan following the Fukushima-Daiichi accident had led to problems maintaining and continuing their technological capabilities. One-third said they had seen falling employment and a decline in business. Jaif said respondents wanted to see the consistent promotion of nuclear policy by the national government, the early restart of nuclear plants and the restoration of public confidence in nuclear power. All of Japan's 48

commercial reactor units at the time of the Fukushima-Daiichi accident were shut down for safety checks and upgrades. Three reactors – Sendai-1, Sendai-2 and Ikata-3 – have been restarted. Takahama-3 and -4 were also restarted, but both have since been taken offline after a court issued a temporary injunction following a protest lodged by anti-nuclear activists.

Can Fukushima No.2 plant continue to exist?

January 3, 2017

Fate of Fukushima No. 2 nuclear plant remains unknown

<http://www.japantimes.co.jp/news/2017/01/03/national/fate-fukushima-no-2-nuclear-plant-remains-unknown/#.WGvMV32Dmos>

JIIJ

The government is struggling to decide the future of Tepco's Fukushima No. 2 nuclear power plant, which has been suspended since the March 2011 disaster.

There have been increasing calls for decommissioning the power plant located just a few kilometers south of the wrecked Fukushima No. 1 installation.

The government has been finding it difficult to reach a clear conclusion on Fukushima No. 2's fate, as it and Tokyo Electric Power Company Holdings have been busy dealing with its older counterpart that suffered three reactor meltdowns following the March 2011 earthquake and tsunami.

On Dec. 21, the Fukushima Prefectural Assembly voted unanimously to adopt a resolution calling on the central government to decommission the No. 2 plant "at an early date," arguing that the facility is an obstacle to the prefecture's recovery from the 3/11 disasters.

A temporary halt to the cooling system for a spent fuel pool at the No. 2 plant caused by an earthquake in November rekindled fears of another meltdown crisis.

In 2011, the prefectural assembly adopted a petition calling for decommissioning all reactors in Fukushima.

The assembly has also adopted a series of written opinions demanding the decommissioning of the No. 2 plant, which is located in the towns of Naraha and Tomioka.

Demands from local communities "have been ignored by the central government," one person said.

The central government's official position is that whether to decommission the plant is up to Tepco.

As the government has already lifted the state of emergency for the No. 2 plant, it has no authority to decide the decommissioning under current regulations.

If an exception were made, the central government could receive a barrage of requests for decommissioning reactors all over the country, sources familiar with the situation said.

"Such a situation would destroy Japan's whole nuclear policy," a senior official at the Ministry of Economy, Trade and Industry said.

Some people have called for creating a special law on decommissioning Fukushima No. 2, but others have raised concerns that such a step could infringe on Tepco's property rights, the sources said.

Some officials in the central government have said that no one believes the No. 2 plant can continue to exist.

Prime Minister Shinzo Abe and his Cabinet have left room for making a political decision on dismantling the facility, saying that the plant can't be treated in the same way as other nuclear plants due to fear among Fukushima residents of another nuclear accident.

Since the government effectively holds a stake of more than 50 percent in Tepco, it can influence the company's policy as a major shareholder.

But Tepco now needs to focus on dealing with the No. 1 plant. A senior company official said that it "cannot afford to decide on decommissioning, which would require a huge workforce."

The main opposition Democratic Party plans to pursue a suprapartisan law that would urge Tepco to decide to decommission the plant at an early date.

"While understanding calls for early decommissioning, we have no choice but to wait for the No. 2 plant's four reactors to reach the end of their 40-year lifetimes," a lawmaker of the ruling Liberal Democratic Party said.

The four reactors launched operations between April 1982 and August 1987.

Govt wants roundtable discussions on reorganising the power industry

January 3, 2017

Gov't mulls 'roundtable' meetings to spur power industry reorganization

<http://mainichi.jp/english/articles/20170103/p2a/00m/0na/012000c>

The Economy, Trade and Industry Ministry is considering holding "roundtable" discussions with top executives of major power companies on measures to restructure their business ties with beleaguered Tokyo Electric Power Co. (TEPCO) and set up operations overseas, it has been learned.

The industry ministry wants to help pave the way for the power industry to restructure and consolidate by setting up a forum in which major utilities can exchange views on the realities of domestic and overseas markets as well as management reforms. The move will effectively have the government play mediator in the reorganization of the power industry.

The move comes after a ministry expert committee on reforming TEPCO and issues related to the tsunami-hit Fukushima No. 1 nuclear plant proposed on Dec. 20 that the government play a "catalytic" role in the realignment of the power industry. In response, TEPCO plans to hash out a new management restructuring plan this month or later. The roundtable is expected to be set up around the time that TEPCO comes up with its new restructuring scheme.

One of the expert panel's proposals is for TEPCO to establish a "consortium" with other utilities on its power transmission and nuclear power projects at an early date. The proposal is intended to facilitate the realignment and consolidation of the power industry as part of moves to rationalize TEPCO's measures to cover the costs of dealing with the Fukushima nuclear accident. The expert panel projected that these costs would swell to 21.5 trillion yen from an earlier estimate of 11 trillion yen. The proposal also draws on TEPCO's plan to move its thermal power business to JERA Co., a joint venture with Chubu Electric Power Co.

The industry ministry is considering plans including publicly soliciting prospective partners for TEPCO. However, major power companies remain cautious, with a senior official at one major utility saying, "Our

own company's profits will be used to deal with the nuclear accident." The utility roundtable meeting is the industry ministry's attempt to help resolve this and other issue. The roundtable idea is also in line with the TEPCO's opinion that "as long as TEPCO is aiming to reorganize at a national level, we want to have an opportunity for all companies to meet and discuss things," as a TEPCO executive said. While domestic power demand has stagnated due to energy-saving efforts and the declining birthrate, **the industry is faced with a shifting market overseas, where demand continues to rise.** According to an International Energy Agency (IEA) forecast, while Japan's domestic electricity consumption will rise only slightly from 950 billion kilowatt-hours in 2014 to 980 billion kilowatt-hours in 2030, overall global consumption will rise from 19.8 trillion kilowatt-hours to 27.9 trillion kilowatt-hours. **Through the roundtable, the industry ministry is keen to help boost utilities' entry into overseas markets by facilitating industry rationalization to strengthen their businesses at home.** However, as the power industry may not respond well to having reorganization foisted on it by the government, the ministry plans to flesh out the scheme carefully. As a senior utility official said, "It is essential to set up a contact point for private entities first and leave the matter to them thereafter."

Nukes necessary to meet emission targets, says JAIF

29.12.2016_No258 / News in Brief

Jaif President Says Reactor Restarts Are Needed For Japan To Meet Climate Targets

<http://www.nucnet.org/all-the-news/2016/12/29/jaif-president-says-reactor-restarts-are-needed-for-japan-to-meet-climate-targets>

Plant Operation

29 Dec (NucNet): Nuclear energy in Japan is accounting for only 1.1% of electricity production and reactors need to be brought back online if the country is to meet its climate goals, Japan Atomic Industrial Forum president Akio Takahashi has said.

In comments published on Jaif's website, Mr Takahashi said commercial operation has been resumed at only three nuclear plants since all reactors were taken offline for post-Fukushima safety checks and upgrades. Those plants are Sendai-1, Sendai-2 and Ikata-3.

Japan has a target of reducing CO2 emissions by 26% from 2013 levels by the year 2030.

Mr Takahashi said to achieve the target, carbon emissions associated with power sources need to be cut, which means operating nuclear power plants.

Before the 2011 Fukushima-Daiichi accident Japan's nuclear fleet had 43 commercial reactors producing around 30% of the country's electricity.

According to recent government figures, Japan's greenhouse gas emissions fell 3% to a five-year low in the financial year through to March due partly to the restart of nuclear plants.

Emissions fell for a second straight year to 1.32 billion tonnes of CO2 equivalent, hitting the lowest since fiscal 2010, according to Ministry of Environment preliminary data.

Related reports in the NucNet database (available to subscribers):

- Nuclear Expenditure Increases In Japan, But Sentiment Remains Gloomy (News in Brief No.255, 26 December 2016)

Minutes on contaminated soil: Many remarks deleted or changed

January 5, 2016

Environment Ministry deleted some of its remarks from minutes on contaminated soil meet

<http://mainichi.jp/english/articles/20170105/p2a/00m/0na/007000c>

The Ministry of the Environment deleted some of its remarks made in **closed-door meetings** on reuse of contaminated soil stemming from the Fukushima nuclear disaster from the minutes of the meetings, it has been learned.

When the ministry posted the minutes on its website, it said it had "fully disclosed" them. The deleted remarks could be taken to mean that the ministry induced the discussions. The remarks led the meetings to decide on a policy of reusing contaminated soil containing up to 8,000 becquerels of radioactive cesium per kilogram. An expert on information disclosure lashed out at the ministry's handling of the minutes, saying, "It is extremely heinous because it constitutes the **concealment of the decision-making process**." The meetings were called the "working group to discuss safety assessments of impacts of radiation." The meetings were attended by about 20 people, including radiation experts, officials of the Environment Ministry and the Japan Atomic Energy Agency (JAEA) and others. The meetings were held six times from January to May in 2016.

The meetings discussed the reuse of radioactively contaminated soil generated when areas affected by the Fukushima nuclear crisis were decontaminated.

Initially, the meetings themselves were unpublicized. But because requests for information disclosure on the meetings were filed one after another, the Environment Ministry posted the minutes and relevant data on its website in August. As a matter of clerical procedures, the ministry said at that time that everything was disclosed.

The minutes that were disclosed contain "draft minutes" that were prepared before becoming official documents, but the Mainichi Shimbun obtained an "original draft" that was prepared even before then. Comparing the disclosed minutes with the original draft, **the Mainichi found multiple cases of remarks being deleted or changed**. According to the original draft, an Environment Ministry official said at the fourth meeting on Feb. 24, "With the assessments of soil with 8,000 becquerels, there have been cases in which the annual radiation dose slightly exceeds 1 millisievert in times of disasters and the like. But it will be good if it stays within 1 millisievert." But the remark was deleted from the disclosed minutes. Soil contaminated with radiation exceeding 8,000 becquerels is handled as "designated waste," but discussions were held on reusing of contaminated soil containing 8,000 becquerels of radioactive cesium

per kilogram during a series of meetings. In the Feb. 24 meeting, the JAEA showed an estimate that workers engaged in recovery work on a breakwater made of contaminated soil of 8,000 becquerels that has collapsed in a disaster would be exposed to radiation exceeding 1 millisievert per year -- the maximum dose allowed for ordinary people. Based on the estimate, there was a possibility of the upper limit for reusing contaminated soil being lowered, but the Environment Ministry official's remark promoted experts and others to call for a review to make a new estimate, with one attendee saying, "If it collapses, it will be mixed with other soil and diluted."

A fresh estimate that the annual radiation dose will stay at 1 millisievert or lower was later officially presented, and the Environment Ministry officially decided in June on a policy of reusing contaminated soil containing up to 8,000 becquerels of radioactive cesium per kilogram.

Lower safety level to reduce costs

January 8, 2017

Quake risk for Japanese-French nuclear plant in Turkey lowered to keep costs down, sources say

<http://www.japantimes.co.jp/news/2017/01/08/business/quake-risk-japanese-french-nuclear-plant-turkey-underestimated-keep-costs-sources-say/#.WHKOSn2Dmos>

Kyodo

Government-commissioned research firms have come up with a questionably low estimate for how badly an earthquake could rattle a nuclear power plant being built in Turkey by a Japanese-French venture, sources say.

The estimated "peak ground acceleration" — the term for ground motion caused by a quake — for the plant in the Black Sea province of Sinop is significantly lower than estimates given for quake-prone Japan's nuclear power plants, and that means it could be an attempt to reduce construction costs, the sources said Saturday.

Turkey is often struck by earthquakes.

The peak ground acceleration for the Sinop plant was estimated at around 400 gal (or 400 cm per second squared), but some experts said it should be "at least 500 gal, based on Japanese standards" and the topography and geography around Sinop.

For instance, the assumed ground acceleration is 620 gal for Kyushu Electric Power Co.'s Sendai nuclear power plant and 856 gal for Kansai Electric Power Co.'s Oi plant.

The assessment was part of a study commissioned by the Agency for Natural Resources and Energy, which is overseen by the Ministry of Economy, Trade and Industry. The aim of the study was to examine potential nuclear power plant construction deals involving Japanese companies in Turkey and Vietnam. Tokyo-based Japan Atomic Power Co. contracted to undertake the ¥2.4 billion (\$20.5 million) study and outsourced the ground acceleration estimate and assessment of active fault zones around the site to other Japanese research firms.

Japan Atomic said it "cannot disclose details of the study" and METI's agency said it has "not received a report" about the matter.

The joint venture by Mitsubishi Heavy Industries Ltd. and French nuclear giant Areva SA was granted exclusive negotiating rights in 2013 to build the Sinop plant. The administration of Prime Minister Shinzo Abe is eager to export nuclear technology to such emerging nations as Turkey and India as part of his national growth strategy.

The consortium plans to build four pressurized water reactors with an output of 1.1 million kilowatts each. Mitsubishi Heavy Industries says a contract with the Turkish government is expected to be sealed this year, with the first reactor expected to go online in 2023.

According to Japanese researchers, active faults are suspected to be present around the site of the envisioned plant. In 1968, a magnitude-6 temblor struck west of the site, and Turkish researchers have warned of the possibility of a major quake occurring in the region again. Residents are protesting the project.

Quake resistance design of Turkey nuclear plant questioned

<http://mainichi.jp/english/articles/20170108/p2g/00m/0in/003000c>

TOKYO (Kyodo) -- Japanese research firms commissioned by the government have given a questionably low estimate for the maximum amount of lateral shaking from earthquakes that could affect a nuclear power plant in Turkey being built by a Japanese-French joint venture, sources privy to the matter said Saturday.

The assumed "peak ground acceleration" -- ground motion caused by an earthquake and one of the factors in assessing quake intensity -- for the plant in the Black Sea province of Sinop in quake-prone Turkey is **estimated at a significantly lower level than that for Japanese power plants in a possible attempt to reduce the construction cost**, the sources said.

While the peak ground acceleration for the **Sinop plant** is estimated at around 400 gal, experts said the estimate, given the topography and geography around Sinop, should be "at least 500 gal based on Japanese standards."

For instance, the assumed ground acceleration is 620 gal for Kyushu Electric Power Co.'s Sendai nuclear power plant in southwestern Japan and 856 gal for Kansai Electric Power Co.'s Oi nuclear power plant on the Sea of Japan coast.

The assessment was part of a study commissioned by the Agency for Natural Resources and Energy under the Ministry of Economy, Trade and Industry **to examine potential nuclear power plant construction deals involving Japanese companies in Turkey and Vietnam**.

Tokyo-based Japan Atomic Power Co. contracted to undertake the 2.4-billion-yen (\$20.52 million) study and outsourced the ground acceleration estimate and assessment of active fault zones around the planned construction site to other Japanese research firms.

Japan Atomic Power told Kyodo News it "cannot disclose details of the study." The agency said it has "not received a report" about the matter.

A joint venture of Japan's Mitsubishi Heavy Industries Ltd. and French nuclear giant Areva SA was granted in 2013 the exclusive negotiating right for construction of the Sinop plant. **The administration of Prime**

Minister Shinzo Abe is eager to export Japanese nuclear technology to emerging economies such as Turkey and India as part of the country's growth strategy.

The consortium plans to build four pressurized water reactors with an output of 1.1 million kilowatts each. Mitsubishi Heavy Industries says a contract with the Turkish government is expected to be sealed this year with operation of the first reactor starting in 2023.

According to Japanese researchers, some active faults are suspected around the envisioned plant site. In 1968, a quake of magnitude 6 occurred west of the site and some Turkish researchers warn of the possibility of a major earthquake occurring in the region. Local residents are protesting the construction plan.

In the wake of the 2011 nuclear disaster at the Fukushima Daiichi power plant, triggered by a magnitude-9.0 earthquake and ensuing tsunami, Japan has put in place stricter rules for operating nuclear plants. But using these same safety standards for nuclear plant contracts overseas would mean a sharp rise in construction costs.

Japan had won a contract to build a nuclear plant in Vietnam, but the Southeast Asian country decided last year to scrap the costly construction plan.

Highschool students at Fukushima plant

January 4, 2017

Students Visit Crippled Fukushima Plant

<https://www3.nhk.or.jp/nhkworld/nhknewsline/nuclearwatch/studentsvisitcrippledfukushimaplant/>

A group of high school students in Japan has visited the crippled Fukushima Daiichi nuclear plant. They're the first minors to be admitted to the site, and they're hoping the experience will help them contribute to the recovery of the surrounding community.

The students spent months preparing for their visit to the site of the 2011 nuclear disaster, and have been checking radiation levels around the region.

"I wanted to know how the workers feel, how far the decommissioning work has progressed, and what problems they have. I thought it would be best to see it with my own eyes, because there are some things you can't understand just from the media," says Miku Norii, who is in her second year and is a member of her school's science club.

After much preparation, and after securing permission from their parents, Miku and the other students headed to the plant. Radiation levels in most of the areas have fallen, so they were able to wear ordinary clothes.

But they did wear gloves and covered their shoes to avoid picking up contaminants. They carried devices that measured how much radiation they were being exposed to, and they stayed inside the bus as it blocks some of the radiation.

The first thing that caught their attention was the massive number of water tanks. They learned that contaminated water is building up at the site.

"Are there walls around the area where the tanks are lined up?" Miku asks.

"There are walls around it and a roof over it to prevent rainwater from getting in as much as possible," a TEPCO worker says.

They saw the reactor building left damaged by a hydrogen explosion. Miku learned that radiation levels near the reactor buildings remain high, so workers need to wear protective gear.

"They need to wear heavy equipment that close to the reactor building," Miku said.

Seeing the damaged reactor building was an encounter with harsh reality. The students could see why the job of decommissioning the plant could take 40 years, or until they reach middle age.

At the end of the tour, the students checked their total radiation exposure. They were relieved to see it was still within the safety guideline.

We caught up with Miku a month after she visited the plant to find out what lasting impression the trip had on her.

"I had done some research before going. But that's different than first-hand experience. When I saw the plant, I was able to feel its size, and the atmosphere. I'm now keenly aware that this is an issue we have to face squarely," Miku says. "I think we'll have opportunities to talk to people, both in and outside Fukushima -- and I hope we can convey our feelings, in our own words."

After our interview, Miku and her friends traveled to an area where residents had been evacuated. They continue to search for the hope that someday their beloved Fukushima will be fully restored.

Japan's energy policy at a crossroads

January 8, 2017

Energy policy needs overhaul

<http://www.japantimes.co.jp/opinion/2017/01/08/editorials/energy-policy-needs-overhaul/>

Japan's energy policy is at a crossroads. The government's basic energy plan revised in 2014 — after the March 2011 triple meltdowns at Tokyo Electric Power's Fukushima No. 1 plant led to the shutdown of most of the nation's nuclear power reactors — continued the heavy reliance on nuclear power and the fossil fuel-based energy supply. But developments in the years since have cast further doubts on the policy's viability, in particular its pursuit of a nuclear fuel cycle program, while the large share of coal-fired thermal power plants in electricity production runs counter to the global trend toward a low-carbon society to fight climate change.

The policy seems incongruous with the reality surrounding nuclear power in this country, where restarts of idled reactors continue at a snail's pace amid safety concerns, and the government's bid for a nuclear fuel cycle remains elusive due to the failure or delays of costly projects. It is time for the policy to get a major overhaul that will significantly expand the role of renewable energy sources.

The basic plan adopted by the administration of Prime Minister Shinzo Abe, which overturned the previous Democratic Party of Japan-led government's call for a phaseout of nuclear power by the 2030s following the disaster in Fukushima, left a lot of ambiguities in the direction of the nation's energy policy. While it called for reducing the dependency on nuclear power as much as possible and accelerating as

much as possible the use of renewable sources such as solar and wind, it positioned nuclear energy as a low-cost and stable baseload power supply source.

A plan released a year later envisaged that nuclear power would account for 20 to 22 percent of the power supply in 2030 — down from 28 percent in the pre-Fukushima year of 2010 but not much different from the 22 to 24 percent allocated for renewable energy. It expects coal- and natural gas-fired plants to supply 26 percent and 27 percent of electricity, respectively.

The Abe administration and the power industry have sought to restart the idled reactors once they pass the Nuclear Regulation Authority's screening under what the governments touts as the world's most stringent safety regulations, which were introduced after the 2011 Fukushima crisis. So far, only five reactors run by Kyushu, Kansai and Shikoku Electric Power have been reactivated — although two of them, reactors No. 1 and 2 at Kansai Electric's Takahama plant in Fukui Prefecture, were taken offline again last year following a court decision on a citizens' request for halting their operation. Popular opposition to reopening nuclear plants due to safety concerns remains strong in media opinion polls. Tepco's bid to reactivate its Kashiwazaki-Kariwa plant in Niigata Prefecture, which it considers key to the firm's reconstruction after the Fukushima disaster, is in doubt with the election last October of a new governor who is cautious toward its restart.

Last month, the government made a final decision to decommission the Monju prototype fast-breeder reactor — after pouring more than ¥1 trillion into the facility in Tsuruga, Fukui Prefecture, which was in operation for a mere 250 days after it first reached criticality in 1994. Monju, once billed as a dream reactor that produces more plutonium than it consumes as fuel, was deemed a key component of the nuclear fuel cycle program, in which spent fuel from nuclear power plants is reprocessed to extract plutonium for reuse as fuel.

Still, the government says it will not review its pursuit of the nuclear fuel cycle — saying that the program will be kept intact by using plutonium-uranium mixed-oxide (MOX) fuel at conventional nuclear power plants. But MOX fuel consumption at those plants remains low due to the slow restart of the idled reactors — Shikoku Electric's Ikata plant is the only one among those reactivated to use MOX fuel. Barely after putting an end to the Monju project, the government is also pushing for domestic development of a demonstration fast reactor — which is even closer to commercial development than the prototype reactor.

All the while, completion of a nuclear fuel reprocessing plant in Aomori Prefecture continues to be pushed back — with the latest plan to get it operating in 2018 already in question. Since construction began in 1993, its completion has been delayed 23 times over a series of technical glitches, with the total cost expanding three times the original estimate to ¥2.2 trillion.

Also in December, the government disclosed that the total expense of dealing with the mess of the 2011 Tepco Fukushima debacle, including the cost of decommissioning the crippled plant, compensation for local residents and decontamination of areas hit by the fallout of radioactive substances, will hit ¥22 trillion. There are plans to add part of the compensation expenses, as well as the costs of other power companies that have been forced into decommissioning their aging reactors earlier than scheduled due to tightened regulations, onto electricity charges, thereby having consumers pay the price.

The government's long-standing claim to the cost advantage of nuclear power over other energy sources must be reassessed and the energy policy should be reviewed based on a more pragmatic assessment of the prospect of nuclear power.

Behing close doors & without Diet deliberations

January 10, 2017

Secret deal reached to have new firms also pay nuclear compensation

<http://mainichi.jp/english/articles/20170110/p2a/00m/0na/006000c>

Major power companies, ruling Liberal Democratic Party (LDP) legislators promoting nuclear power and bureaucrats have agreed behind closed doors to require new market entrants to shoulder part of the compensation costs to those affected by the Fukushima nuclear crisis.

Three high-ranking officials of the Federation of Electric Power Companies of Japan (FEPC) representing major power companies met separately with a few LDP legislators at the Diet members' office building just across from the Diet Building in early September 2016.

The FEPC officials showed a 10-page document estimating that the amount of compensation to those affected by the nuclear disaster, which broke out in March 2011, would sharply increase.

Tokyo Electric Power Co. (TEPCO), the operator of the tsunami-ravaged Fukushima No. 1 Nuclear Power Plant, and other major power companies have paid some 160 billion yen annually in compensation for the nuclear disaster.

FEPC executives asked that new companies, which have entered the liberalized power market, also foot part of the costs of paying compensation, fearing that major utilities could be required to fully shoulder the increasing costs of compensation payments.

Explaining that member companies' business environment has become increasingly severe because of the intensifying price competition in the liberalized industry, one of the industry body executives told the LDP lawmakers, "I'd like to ask you to avoid requiring only major companies to bear the increasing burden."

The executive also asked the legislators to keep the estimate a secret saying, "This document doesn't officially exist."

FEPC also lobbied the Economy, Trade and Industry Ministry over the issue by showing the same document to bureaucrats. The ministry agreed to require new power firms to shoulder part of the costs of increasing compensation.

Prior to these moves, TEPCO Holdings, Inc. predicted in late July that the costs of dealing with the disaster at the Fukushima No. 1 complex would sharply increase, and asked the government for financial assistance. The costs include compensation payments, decommissioning of the reactors at the crippled power station and decontamination of areas tainted by radioactive substances leaking from the plant. The national government currently temporarily shoulders the costs of compensation payments and decontamination. TEPCO and other major power suppliers are supposed to later pay the compensation costs to the government while funds to cover the costs of decontamination are supposed to be raised through the sale of TEPCO shares the government holds. How to raise funds to make up for the increase in the estimated amount of compensation from 5.4 trillion yen to 7.9 trillion yen poses a challenge.

The Economy, Trade and Industry Ministry set up two panels of experts in late September to discuss the issue. At the time, the ministry had a plan to add part of the costs of compensation payments to the transmission fees that smaller power companies pay for their use of major utilities' power grids.

In the 2020 power industry reform, major power companies' retail and power transmission divisions will be separated and retail firms as well as smaller power companies will be required to pay transmission fees to power companies. The costs will in turn be passed on to consumers.

The ministry then proposed that consumers who have benefited from nuclear power be broadly required to shoulder the costs of compensation payments in proportion to the benefits they have received.

Since the setup and changes of transmission fees do not require revisions to relevant legislation, such a decision can be made without going through Diet deliberations.

The ministry and legislators from the governing bloc joined hands in deciding to add the costs to the transmission fees.

"If the bailout of TEPCO were to be deliberated in the Diet, no one could predict how the matter would develop," said a senior official of the ministry.

"It'd be troublesome if we were to be grilled by opposition parties over the issue," said a mid-ranking LDP legislator.

Japan's power industry: Conclusions drawn in advance ?

January 10, 2017

Japan's power industry at crossroads as Fukushima decommissioning costs rise

<http://mainichi.jp/english/articles/20170110/p2a/00m/0na/005000c>

The Economy, Trade and Industry Ministry's plan to add the increased costs of decommissioning the tsunami-hit Fukushima No. 1 Nuclear Power Plant was scrapped before the end of the year due to a public backlash.

It is estimated that the costs of decommissioning the crippled power station would snowball from 2 trillion yen to 8 trillion yen. An internal document that the ministry had compiled by September last year stated that the costs of compensation payments as well as the decommissioning expenses should be added to power transmission fees that new power companies pay for the use of major utilities' power grids. If the decommissioning costs that are expected to increase by trillions of yen were regarded as TEPCO's debts, the utility would fall into a state of capital deficit -- in which the company's debts surpass its assets. It could force TEPCO to delist its stock on stock markets and make it difficult for banks to continue loaning to the firm.

To avoid such a situation, the Economy, Trade and Industry Ministry has decided to change the accounting rules to allow TEPCO to book the decommissioning costs in separate years. To do so, however, it is necessary to guarantee that the costs can be recovered from TEPCO every year. Two plans surfaced to enable this.

One is to accumulate money to be saved through TEPCO's cost-cutting measures and management reform at the Nuclear Damage Compensation and Decommissioning Facilitation Corp. (NFD), which would control the decommissioning costs. The other is to add part of the decommissioning costs to transmission fees. In October, a senior ministry official told LDP legislators behind closed doors, "It's safer to add the costs to the transmission fees than relying on TEPCO's management reform."

However, experts as well as the general public intensified their criticism of the plan to add decommissioning expenses to the transmission fees despite the earlier plan to make sure that TEPCO fully secured funds for decommissioning the plant.

In response, the ministry changed its policy. In a Nov. 8 document that the ministry released when briefing LDP members, it stated the two plans as ways to certainly secure enough funds for decommissioning the plant. However, in its Dec. 1 document, the plan to add the costs to transmission fees was dropped.

"We considered the use of transmission fees but we can't implement it because of mounting criticism of the plan," said a ministry official in charge of the matter.

On the other hand, major power suppliers besides TEPCO have footed the costs of paying compensation to those affected by the Fukushima nuclear crisis. An expert committee dealing with the matter proposed at the end of the year that the increase in the amount of compensation payments should be raised by adding the amount to transmissions fees.

Saying that power companies that own nuclear plants should have saved money to respond to nuclear accidents, the panel recommended that new power companies should shoulder part of the costs because their customers had previously benefited from nuclear power run by major utilities.

The committee also proposed that major power suppliers be obligated to supply less expensive electricity, such as power generated at nuclear plants, to new power companies. In other words, the panel attempted to take the carrot-and-stick approach to convince new market entrants.

In response to the recommendations, the Economy, Trade and Industry Ministry will implement the proposals after soliciting public comments. As a result of the implementation of the plan, the monthly electric power bill for a standard household in Japan, excluding Okinawa Prefecture where there are no nuclear plants, would rise an average of 18 yen over a 40-year period from 2020.

The ministry patiently and carefully formed consensus among legislators over the plan. The committee's conclusion was based on its explanatory document that the panel presented to the LDP shortly before. House of Representatives member Taro Kono and a few other LDP legislators calling for an end to Japan's reliance on atomic power voiced opposition, but they fell far short of a majority.

Minako Oishi, an adviser on consumer affairs who sits at the experts' panel, repeatedly voiced opposition to adding compensation costs to transmission fees on the grounds that it would run counter to the purpose of liberalizing the power market. She also released a written statement to that effect. However, she was unable to overwhelm the firm alliance between politicians and bureaucrats.

"I have the impression that the conclusion had been drawn in advance. Such a serious matter as the additional financial burden of dealing with the Fukushima accident should've been discussed at the Diet," Oishi said.

On Dec. 20, 2016, the ministry's expert committee compiled its recommendations estimating that TEPCO needs to shoulder 16 trillion yen of the cost of dealing with the Fukushima nuclear crisis. The recommendations urged TEPCO to merge each of its divisions, including nuclear power and power transmission, with those of other companies -- effectively leading to a split of the utility -- and advance into the global market.

On the same day, a message by TEPCO President Naomi Hirose was released through the company's in-house computer network. "If we steadily continue our work without hesitation, we can open up new opportunities. This is something that only TEPCO can do," the message said.

However, the message reflects Hirose's anxiety. Hirose told TEPCO executives the following day at the headquarters, "I'm worried whether employees can maintain their morale. Please try not to make them feel weak."

TEPCO failed to achieve its goal of getting out of state control as early as fiscal 2017 by improving its business performance -- because there are no prospects that its idled Kashiwazaki-Kariwa Nuclear Power Plant in Niigata Prefecture can be reactivated in the foreseeable future.

TEPCO Director Keita Nishiyama sat at the news conference on July 28 with Chairman Fumio Sudo and President Hirose, and read a statement saying that "the government needs to clarify its policy" on how to shoulder the costs of dealing with the nuclear crisis, which is expected to worsen. Nishiyama is a bureaucrat that the ministry loaned to TEPCO as a board member after placing the utility under state control.

His tough statement indirectly asks the government for assistance. A TEPCO executive said, "It's not a type of statement written by a private company insider."

At the news conference, the ministry suggested that it would take the opportunity of discussions on how to shoulder the costs of dealing with the Fukushima nuclear crisis to embark on its long-cherished goal of restructuring the electric power and atomic energy industries.

About two months later, the ministry set up two expert panels -- one on TEPCO reform and the other on the reform of the electric power system.

"In Japan, the demand for power has stagnated. In particular, regulations on the atomic energy business are stiff. Therefore, the power industry is a declining industry. There's no time to lose in promoting business tie-ups and overseas expansion. Discussions shouldn't be limited to TEPCO reform," said a ministry official.

However, some TEPCO officials have expressed displeasure at the move. "Infrastructure companies like us are different from manufacturers. It's important to ensure stable power supply. It's not true that we should just increase our profits," one of them said.

At the same time, executives of other major power companies reacted coolly to TEPCO.

"We don't know how much of the costs of dealing with the Fukushima accident we'll be required to shoulder," one of them said.

"TEPCO's arrogance that stood out in the industry is still fresh in our memory," another commented.

The ministry and the expert panel on TEPCO reform share the view that TEPCO needs to carry out the largest-scale reforms since Yasuzaemon Matsunaga, the "king of the power industry" who established major power companies' regional monopolies in order to ensure stable power supply.

However, Japanese semiconductor and liquid crystal manufacturers and other companies that were integrated on the initiative of the Economy, Trade and Industry Ministry have not grown as the ministry had aimed.

As such, it remains to be seen whether TEPCO will join hands with other power companies and gain entry into the global market as the ministry envisages.

Oma mayoral race: For or against new nuke plant?

January 10, 2017

Nuclear plant construction at center of town's first mayoral race in 16 years

<http://www.japantimes.co.jp/news/2017/01/10/national/politics-diplomacy/nuclear-plant-construction-center-towns-first-mayoral-race-16-years/#.WHT01H2Dmos>

Kyodo

AOMORI – Official campaigning began Tuesday for the first mayoral election in 16 years in the town of Oma, Aomori Prefecture, with four candidates battling it out over whether an under-construction nuclear plant is good for the community.

Voters will cast ballots Sunday for the first time since January 2001. The current mayor, Mitsuharu Kanazawa, 66, faced no challengers in the three previous elections.

Kanazawa, who is seeking re-election once again, supports the early completion of the nuclear plant that Electric Power Development Co., more commonly known as J-Power, started building in 2008 on the coast of the Tsugaru Strait between Aomori and Hokkaido.

Two of the three other candidates oppose the construction, which was suspended in the aftermath of the 2011 Fukushima nuclear crisis. The plant's targeted start for commercial operation is currently set for fiscal 2024.

One of the candidates is Hideki Sasaki, 67, a former member of the municipal assembly in Hakodate, Hokkaido, located about 30 km across the Tsugaru Strait from the construction site. Sakaki, who moved to Oma, opposes the construction.

Another is Atsuko Kumagai, 62, the head of a citizens' group who owns land near the construction site. She also objects to the plant's construction and proposes reinvigorating the town through fishing and tourism. The final candidate is Naofumi Nozaki, a 61-year-old former Oma town official. He has criticized the current town administration for excessive dependence on government nuclear power plant subsidies and has pledged to restore the town's fiscal health and revitalize the local community.

Decommissioning costs will probably continue to grow

January 10, 2017

News Navigator: Why are costs for dealing with Fukushima disaster growing?

<http://mainichi.jp/english/articles/20170110/p2a/00m/0na/011000c>

The government estimate of the overall costs for handling the aftermath of the Fukushima No. 1 Nuclear Power Plant has grown considerably, with **a previous estimate of 11 trillion yen updated to 21.5 trillion yen at the end of last year**, the second time the estimate has received a large hike. The Mainichi answers common questions readers may have about the growing costs.

Question: What is the breakdown of the cost increases?

Answer: As the decommissioning schedule of the Fukushima reactors has proceeded, and with the removal of the melted nuclear fuel debris set to possibly begin in 2021, the earlier estimate of 2 trillion yen for decommissioning costs was seen as insufficient and has been newly estimated at 8 trillion yen. Expected compensation payments have risen from 5.4 trillion yen to 7.9 trillion yen as damage to commercial, industrial and agricultural businesses from the disaster has lingered. Costs for

decontamination work are estimated to increase from 2.5 trillion yen to 4 trillion yen due to higher personnel and materials costs. Mid-term storage sites for contaminated material are to grow in cost from 1.1 trillion yen to 1.6 trillion yen due to factors including safety measures during transport.

Q: Will the costs continue to increase?

A: The location and amount of the nuclear fuel debris are unknown, and the method of its removal is undecided. **The new 8 trillion yen figure is just based on the costs of decommissioning the Three Mile Island nuclear plant that experienced an accident in the United States in 1979, and so costs may continue to grow.** (Answers by Daisuke Oka, Business News Department)

Toshiba losses in US nukes could grow even worse

January 12, 2017

Toshiba may face still heavier losses in U.S. nuclear business: source

<http://www.japantimes.co.jp/news/2017/01/12/business/corporate-business/toshiba-may-face-heavier-losses-u-s-nuclear-business-source/#.WHddxH2Dmot>

Kyodo

Toshiba Corp. anticipates that total losses at its nuclear business in the United States could be larger than earlier stated due to a write-down at its subsidiary Westinghouse Electric Co., a source familiar with the matter said Wednesday.

The development may further taint the financial standing of the company that has been battling to overcome a massive window-dressing scandal.

Toshiba is finalizing the size of an impairment loss at Westinghouse, which could reach tens of billions of yen, ahead of the release of its group earnings report for the April to December period in mid-February, the source said.

Last month Toshiba said it may need to write down the value of assets at CB&I Stone & Webster Inc., a nuclear plant builder Westinghouse obtained in 2015, possibly by several hundred billion yen.

Toshiba believes the devaluation of CB&I Stone & Webster may have seriously undermined the value of Westinghouse, the source said.

The source said Toshiba estimated the final write down in connection with U.S. nuclear plant operations may reach up to ¥500 billion as of the end of last year, but the total amount could change as the company combed through their financial data.

Toshiba has been focusing on nuclear energy operations as its core business but has been struggling to win orders for new power plants both at home and abroad, particularly after the 2011 Fukushima nuclear disaster.

The company booked an impairment loss of about ¥250 billion in its U.S. nuclear business in the last fiscal year through March 2016.

Safety checkups unsafe

January 15, 2017

Pipe checks at Japan's nuclear control rooms conducted without removing insulation

<http://www.japantimes.co.jp/news/2017/01/15/national/running-blind-pipe-checks-nuclear-control-rooms-conducted-without-removing-insulation/#.WHs-T32Dmos>

JII

The vast majority of Japan's 42 viable commercial nuclear reactors have not had detailed checkups performed on the air conditioning and ventilation systems of their central control rooms, it has been learned.

According to Japan Atomic Power Co. and nine utilities that manage nuclear power plants, the checkups — conducted at only two of the plants so far — are carried out without removing the insulation on the pipes. Last month, Chugoku Electric Power Co. found extensive corrosion and holes, including one measuring 30 cm by 100 cm, in the ventilation pipes of the No. 2 reactor at the Shimane nuclear plant in Matsue, Shimane Prefecture. It was the first time the utility had removed the covering on the pipes since the reactor booted up in 1989.

Concluding the pipes were not functioning properly, Chugoku Electric reported the degradation to the Nuclear Regulation Authority.

In the event of an accident, control rooms, which are staffed around the clock, must be self-contained to prevent outside air from entering.

Five reactors at the three nuclear plants that have been reactivated since 2015 have not undergone pipe inspections in which their insulation was removed. Of the five, the No. 1 reactor at Kyushu Electric Power Co.'s Sendai plant in Kagoshima Prefecture and the No. 3 reactor at Shikoku Electric Power Co.'s Ikata plant in Ehime Prefecture are currently in operation.

Following the discovery of the pipe degradation at the Shimane No. 2 reactor, the NRA plans to check conditions at all of the nation's nuclear plants, sources said.

Hokuriku Electric Power Co. detected rust in the ventilation pipes of the No. 1 reactor at its Shika nuclear plant in Ishikawa Prefecture in 2003. After removing the covers and conducting further inspections, the company replaced the equipment in 2008.

The NRA suspects that the pipe corrosion at the Shimane No. 2 reactor may violate nuclear regulatory standards, an official said.

"As the plant is located near the sea, salt-containing air may have flowed into the pipes and hastened corrosion," a Chugoku Electric official said.

Most of the nation's nuclear plants are in coastal areas because they use seawater to cool their turbines.

To fight rumors about Fukushima produce...

January 15, 2017

Fukushima to play direct role in pitching its produce in Tokyo-area supermarkets

<http://www.japantimes.co.jp/news/2017/01/15/national/fukushima-play-direct-role-pitching-produce-tokyo-area-supermarkets/>

Fukushima Minpo

To fight harmful rumors about Fukushima farm produce and to revive sales, the prefectural government plans to set up permanent sales spaces for susceptible products in major supermarkets in the Tokyo metropolitan area this summer.

The prefectural government has been trying to improve sales by emphasizing the results of radiation tests proving the products are safe. But supermarkets are still reluctant to sell Fukushima produce even six years after the triple core meltdown at the Fukushima No. 1 nuclear plant.

The prefectural government will now focus on establishing sales channels and making sure Fukushima-made produce is treated the same way as produce from other prefectures. It will provide funds to hire sales staff to promote the products and to offer perks to those who buy them.

To recover the sales channels lost after the 2011 meltdowns, prefectural officials have judged it necessary to directly support distribution in addition to publicizing the radiation tests to prove Fukushima produce is safe.

“We will take drastic measures to boost distribution of prefecture-made food products to recover and explore sales channels,” said Fukushima Gov. Masao Uchibori at his first news conference of the year on Jan. 4.

The prefecture plans to start the project in about 10 supermarkets in the Tokyo area before expanding to other stores after gauging public response. Fruit, vegetables, rice and meat produced in Fukushima will be sold at those locations and promoted by staff offering free samples. Prefectural officials may also try to generate interest by offering Fukushima products for free via lotteries.

The prefectural government plans to reach out to supermarket chains for proposals on how they would set up these dedicated promotional spaces. It believes retailers can benefit from the project because they can expect an increase in customers and sales by selling the produce with incentives attached.

Fukushima plans to invest part of the ¥4.7 billion in rumor-squelching funds allocated in the central government’s fiscal 2017 draft budget on projects aimed at improving its image.

“We will ask for the acceptance and cooperation of supermarkets so that sales sections and channels for Fukushima-made products lost after the Great East Japan Earthquake can be regained,” said an official of the Farm Produce Distribution Division.

This section, appearing every third Monday, focuses on topics and issues covered by the Fukushima Minpo, the largest newspaper in Fukushima Prefecture. The original article was published on Jan. 5.

Will TEPCO be forced to retain money for decommissioning?

January 14, 2017

Law to make Tepco retain money for decommissioning costs

http://www.japantimes.co.jp/news/2017/01/14/national/law-make-tepco-retain-money-decommissioning-costs/#.WHO_032Dmot

Jiji

The government plans to legally oblige Tokyo Electric Power Company Holdings Inc. to retain money to cover costs for decommissioning its crippled Fukushima No. 1 nuclear power plant, Jiji Press has learned. A draft of a bill to revise the law on the Nuclear Damage Compensation and Decommissioning Facilitation Corp. states that business operators that caused nuclear accidents are obliged to deposit funds to cover related costs at the organization every fiscal year, informed sources said Friday.

By clarifying Tepco's duty to build up funds by law, the government aims to steadily implement work to decommission the Tepco plant in Fukushima Prefecture.

The Ministry of Economy, Trade and Industry plans to submit the amendment to this year's ordinary session of the Diet, slated to start next Friday.

The draft says the amount of money to be put aside will be decided by the organization and should be approved by the industry minister each fiscal year.

The deposited funds can be withdrawn based on a plan compiled jointly by the organization and the business operators that caused nuclear accidents and will be approved by the minister.

The revised law would allow the industry ministry and the organization to conduct on-site inspections if needed.

Tepco is set to decommission all six reactors at the Fukushima No. 1 plant, which was heavily damaged in the March 2011 earthquake and tsunami. Unprecedentedly, nuclear fuel melted at three of the six reactors.

If work to remove the melted fuel is fully launched, annual decommissioning costs are expected to balloon to several hundreds of billions of yen from the current ¥80 billion (\$700 million), with the total costs seen amounting to ¥8 trillion.

The ministry is planning to have Tepco bear all the decommissioning costs.

The mothers of Fukushima (1)

An article in German by IPPNW

<https://www.ippnw.de/atomenergie/gesundheit/artikel/de/unabhaengige-untersuchung-und-beratu.html>

aus dem ATOM-Energie-Newsletter Januar 2017

Die Mütter von Fukushima

Unabhängige Untersuchung und Beratung für Betroffene des Super-GAUs von Fukushima
09.01.2017

In Japan versuchen die Behörden weiterhin, die Bevölkerung bezüglich der Risiken der Atomenergie zu beruhigen. Ein enormer PR-Aufwand wird betrieben, um die Atomenergie in einem guten Licht darzustellen zu lassen und gegenläufige Nachrichten, kritische wissenschaftliche Ergebnisse und unangenehme Fakten

zu unterdrücken. Unabhängige Strahlenmessstellen sind für die japanische Atomlobby daher ein besonderer Dorn im Auge – besonders wenn diese von Müttern betrieben werden, die die Gesundheit und die Zukunft ihrer Kindern als Motivation für ihre subversive Arbeit anführen.

In der Stadt Iwaki, nur etwa 50 km vom havarierten AKW entfernt, führt das gemeinnützige “Mothers’ Radiation Lab Fukushima” seit 5 Jahren unabhängige wissenschaftliche Strahlenmessungen durch. Der japanische Name (Iwaki Radiation Measuring Center Tarachine) spielt auf die “sorgsame Mutter” Tarachine in der japanischen Tradition an. Das Labor wurde von besorgten Müttern gegründet, die sich auf Demonstrationen gegen Atomenergie kennen gelernt hatten. Ihnen wurde bewusst, dass sie mit Demonstrationen alleine wenig bewirken konnten. Sie wollten etwas bewegen und das Schicksal ihrer Familien und ihrer Heimat nicht länger den Behörden in Tokyo überlassen, sondern in die eigene Hand nehmen. Daher fassten sie den Beschluss, eine unabhängiges Strahlenmess-Labor zu gründen und taten sich dafür mit Wissenschaftlern und Spezialisten zusammen. Sie sammelten Spenden, kauften die nötige Ausrüstung, bildeten sich fort und gründeten 2011 das Mother's Radiation Lab Fukushima.

Heute hat das Labor 12 MitarbeiterInnen und mehr Aufträge als es bearbeiten kann. Seit dem mehrfachen Super-GAU von Fukushima sind in Japan mehr als 100 bürgerbetriebene Labore entstanden, aber das Labor der Mütter in Iwaki ist das einzige, das über die nötige Gerätschaft zur Testung von Betastrahlern verfügt. Das ist wichtig, um in Nahrungsprouben, wie z.B. von wilden Pilzen oder Obst radioaktive Stoffe wie Cäsium-134, Cäsium-137, Strontium-90 und Tritium zu detektieren. Das Labor veröffentlicht seine Daten online und rät der Bevölkerung dazu, Orte und Lebensmittel mit hoher nachgewiesener Strahlenbelastung zu meiden. Diese fundierten Daten und Warnungen sind für viele Familien im Alltag sehr wichtig und ergänzen die dürftigen Informationen der Präfektur und der Zentralregierung. Diesen scheint vor allem an einer baldmöglichen Wiederbelebung der regionalen Landwirtschaft gelegen zu sein, so dass unangenehme Erkenntnisse über anhaltende Strahlenbelastungen in Fukushima mit dem Argument verdrängt werden, man müsse nun optimistisch in die Zukunft blicken.

Die Mütter wissen, dass viele Familien an der einfachen aber lebenswichtigen Frage verzweifeln: was können wie noch sicher essen? Die Kluft zwischen denen, die unbeschwert die eigene Ernte verzehren und denen, die nur getestete und für sicher befundene Nahrung für ihre Familie zulassen, ist groß und verläuft zum Teil zwischen Ehepartnern oder Generationen, wenn beispielsweise ältere Menschen wie gewohnt Obst und Gemüse für den Eigenbedarf anbauen und ihre Kinder die Ernte aber für sich und ihre Familien aus Sorge um radioaktive Belastung ablehnen. Hier bieten die Mütter mit ihrem unabhängigen Labor eine konkrete Lösung für potentiell verheerende Familienkonflikte. Die MitarbeiterInnen des Labors testen alles, was ihnen gebracht wird – von Reis über Laub bis hin zum Inhalt von Staubsaugerbeuteln.

Die Regierung testet Stichproben auf Großmärkten und im Handel, bietet aber keine Messungen von selbst angebautem Obst oder Gemüse an. Auch führte die Regierung groß angelegte Dekontaminationsprojekte in den Städten und Dörfern der kontaminierten Gebiete durch und stellte sicher, dass in Wohngebieten die Grenzwerte nicht überschritten werden. Mittlerweile sind diese Messungen jedoch teilweise schon Jahre her und die Flächen durch Pollenflug, Wind, Regen, Schnee und zum Teil auch Überschwemmungen bereits mehrfach rekontaminiert. Regelmäßige Messungen von Bodenproben oder Hausstaub werden von den Bewohnern der kontaminierten Gebiete dringend benötigt,

von den Behörden jedoch nicht angeboten. In kommerziellen Laboren kosten solche Analysen rund 200.000-250.000 Yen (1.600-2.000 Euro). Im Mothers' Radiation Lab Fukushima kosten die selben Untersuchungen nur rund 3.000 Yen (25 Euro), so dass sich auch Privatleute eine Messung ihrer Ernte, ihrer Bodenproben, ihres Herbstlaubs oder ihres Hausstaubs leisten können.

Die Mütter bilden sich selber ständig fort und professionalisieren ihre Arbeit. Nun da sich das Labor mittlerweile etabliert hat, haben die Mütter vor, bis 2017 Japans erste von Bürgern betriebene Klinik zu gründen. Hier sollen die Betroffenen der Atomkatastrophe von Fukushima die Möglichkeit haben, Blutuntersuchungen, augenärztliche Untersuchungen auf Katarakte, Ultraschalluntersuchungen der Schilddrüse und Ganzkörper-Strahlenmessungen durchführen zu lassen. Einige dieser Angebote werden bereits jetzt unregelmäßig von MitarbeiterInnen des Bürger-Labors und Spezialisten angeboten, die aus ganz Japan nach Iwaki reisen um die dortige Bevölkerung zu unterstützen.

Während die Schilddrüsen von Kindern in der Präfektur Fukushima alle zwei Jahre von der Fukushima Medical University untersucht werden, gibt es in der Bevölkerung wachsende Kritik und Zweifel an den Ergebnissen dieser Tests. Die Unterlagen und Daten werden den Familien nicht ausgehändigt, die Ultraschalltermine sind nur sehr kurz und dürfen nur alle zwei Jahre durchgeführt werden und obendrein hat die Studienleitung wiederholt angegeben, die Untersuchungen mit dem Ziel durchzuführen, die Bevölkerung zu beruhigen. Daher sind die unabhängigen Untersuchungen des Mothers' Radiation Lab Fukushima für besorgte Familien so wichtig. Die Mütter planen zudem die Einführung umfassender Beratungsangebote und psychologische Unterstützung. Laut Angaben einer Umfrage der Chukyo Universität von 2014 haben 50% aller Mütter in Fukushima Sorge um die Gesundheit ihrer Kinder. Der psychische Stress des Lebens in einer kontaminierten Umwelt macht sich bei den Müttern, aber auch bei den Kindern bemerkbar.

Von Dr. Alex Rosen

Mehr Informationen

über das Mothers' Radiation Lab Fukushima und Informationen, wie man die Einrichtung am besten unterstützen kann, findet man auf den folgenden Webseiten:

- <https://www.facebook.com/Mothers-Radiation-Lab-Fukushima-686021531546687/>
- <http://www.iwakisokuteishitu.com/english/index.html>
- <http://www.bbc.com/news/magazine-35784923>

The mothers of Fukushima (2)



In Japan the authorities continue to do their utmost to reassure the people about the risks of nuclear energy. Huge communication efforts are made to put nukes in a good light and play down new developments, critical scientific findings and unpleasant facts. People who have decided to measure radioactive contamination themselves are therefore seen as particularly obnoxious by the Japanese nuclear lobby. Even more so when this subversive initiative is taken by mothers reduced to it because their children's health and future is at stake.

For more information on the Fukushima mothers radiation lab, see :

<http://www.iwakisokuteishitu.com/english/index.html>

video : <https://youtu.be/dwq8bEZnJhU?t=51>

see also:

<http://www.bbc.com/news/magazine-35784923>

Five years ago an earthquake off the coast of Japan triggered a tsunami and a series of meltdowns at the Fukushima nuclear plant. Kaori Suzuki's home is nearby - determined to stay, but worried about her children's health, she and some other mothers set up a laboratory to measure radiation.

A woman in a white lab coat puts some yellow organic material on a slide, while grey liquid bubbles in vials behind her. Other women, one of them heavily pregnant, discuss some data on a computer screen. A courier delivers a small parcel which is opened and its contents catalogued.

But this is no ordinary laboratory. None of these women trained as scientists. One used to be a beautician, another was a hairdresser, yet another used to work in an office. Together they set up a non-profit organisation - Tarachine - 50km (30 miles) down the coast from the Fukushima nuclear plant, to measure radiation in the city of Iwaki.

Kaori Suzuki, the lab's director, shows me a list of results. "This is the level of strontium 90 in Niboshi, dried small sardines, from the prefecture of Chiba," she says.

"What about this food?" I ask, pointing out a high number.

"Mushrooms have higher levels [of radiation]. The government has forbidden people from eating wild mushrooms, but many people don't care, they take them and eat," she says.

The lab mainly measures the radioactive isotopes caesium 134 and 137, and collects data on gamma radiation. Strontium 90 and tritium were only added to the list in April last year. "Since they emit only

beta rays we weren't able to detect them until recently. Specific tools were necessary and we couldn't afford them," says Suzuki. Thanks to a generous donation, they now have the right equipment. Tarachine publishes its findings online every month, and advises people to avoid foods with high readings as well as the places they were grown.

★Gamma-ray		(Bq/Kg raw:Weight of raw sample Bq/Kg dry:Weight of dried sample)					
Samples	Sampling Point	Sampling Month	Measurement Result		Uncertainty	Total Amount of Cesium	Minimum Limit of Detection
Rice	Aizu	Oct-15	Cs137	—	Not a raw	Under Minimum Limit of Detection	Cs137 2.5
			Cs134	—	Not a raw		Cs134 2.3
Rice	Ishikawa Ishikawa	Oct-15	Cs137	—	Not a raw	Under Minimum Limit of Detection	Cs137 2.2
			Cs134	—	Not a raw		Cs134 2.1
Brown rice	Sakai Osaka	Oct-15	Cs137	—	Not a raw	Under Minimum Limit of Detection	Cs137 1.1
			Cs134	—	Not a raw		Cs134 1.0
Yuzu (citrus fruits)	Hobara Date	Jan-16	Cs137	8.8	± 2.5	12.0	Cs137 2.4
			Cs134	3.2	± 1.6		Cs134 2.3
Lemon	Ena Iwaki	Jan-16	Cs137	6.5	± 2.4	6.5	Cs137 4.7
			Cs134	—	Not a raw		Cs134 —
Kawano-natsudaidai orange (without peel)	Yunagaya Jyoban Iwaki	Jan-16	Cs137	—	Not a raw	Under Minimum Limit of Detection	Cs137 1.2
			Cs134	—	Not a raw		Cs134 1.1
Apple (without peel)	Fukushima	Dec-15	Cs137	—	Not a raw	Under Minimum Limit of Detection	Cs137 2.7
			Cs134	—	Not a raw		Cs134 2.5
Butterbur sprout	Kubo Kashima Iwaki	Jan-16	Cs137	—	Not a raw	Under Minimum Limit of Detection	Cs137 2.3
			Cs134	—	Not a raw		Cs134 2.6
Dried persimmon	Touno Iwaki	Oct-15	Cs137	3.2	± 1.5	3.2	Cs137 2.1
			Cs134	—	Not a raw		Cs134 1.7
Pollution raw wood shiitake mushrooms	Nagasaki Iwaki	Jan-16	Cs137	198	± 40.0	253	Cs137 8.1
			Cs134	54.9	± 12.8		Cs134 7.4
Thinly sliced and dried strips of radish	Tabito Iwaki	unknown	Cs137	3.4	± 1.9	3.4	Cs137 2.8
			Cs134	—	Not a raw		Cs134 2.5
Thinly sliced and dried strips of radish	Iwaki	unknown	Cs137	4.2	± 2.7	4.2	Cs137 3.9
			Cs134	—	Not a raw		Cs134 3.6

Image Tarachine

Five years ago, Suzuki knew nothing about radiation. She spent her time looking after her two children and teaching yoga. The earthquake on 11 March 2011 changed everything.

"I've never experienced so much shaking before and I was very scared. Right from the moment it started I had a feeling that something might have happened to the nuclear plant," she says. "The first thing I did was to fill up my car with petrol. I vividly remember that moment."

The authorities evacuated the area around the nuclear plant - everyone within a 20km (12-mile) radius was told to leave, and those who lived up to 30km (18 miles) away were instructed to stay indoors. Despite living outside the exclusion zone, Suzuki and her family fled and drove south. The roads were congested with cars and petrol stations ran dry.

"We didn't come back home until the middle of April and even then we wondered if it was safe to stay," says Suzuki. "But my husband has his own business with 70 employees, so we felt we couldn't leave." Although radiation levels in Iwaki were officially quite low, the "invisible enemy" was all people could talk about. Conversations with friends changed abruptly from being about children, food and fashion, to one topic only: radiation. "You can't see, smell or feel it, so it is something people are afraid of," says Suzuki. Above all, people didn't know what was safe to eat.

"It was a matter of life and death," she says.

Fukushima is farming country and many people grow their own vegetables. "People here love to eat home-grown food and there's a strong sense of community with people offering food to their friends and neighbours," says Suzuki. This caused a lot of anxiety. "A difficult situation would arise where

grandparents would be growing food, but younger mothers would be worried about giving it to their children."

Suzuki formed the group "Iwaki Action Mama" together with other mothers in the area. At first they organised demonstrations against nuclear power, but then they decided on a new tactic - they would learn how to measure radiation themselves.

They saved and collected \$600 (£420) to buy their first Geiger counter online, but when it arrived the instructions were written in English, which none of them understood. But they persevered and with the help of experts and university professors, organised training workshops. Soon they knew all about becquerels, a unit used to measure radiation, and sieverts, a measure of radiation dose. They would meet at restaurants and cafes to compare readings.

Becquerels and Sieverts

- A becquerel (Bq), named after French physicist Henri Becquerel, is a measure of radioactivity
- A quantity of radioactive material has an activity of 1Bq if one nucleus decays per second - and 1kBq if 1,000 nuclei decay per second
- A sievert (Sv) is a measure of radiation absorbed by a person, named after Swedish medical physicist Rolf Sievert

In November 2011 the women decided to get serious and set up a laboratory. They raised money and managed to buy their first instrument designed specifically to measure food contamination - it cost 3 million yen (£18,500, or \$26,400).

They named the laboratory Tarachine, which means mothers - in particular, "beautiful mothers that protect their families" according to Suzuki.

"We felt as though we were on the front line of a battlefield," Suzuki says. "When you're at war you do what you have to do, and measuring was the thing we felt we had to do."

Today Tarachine has 12 employees, and more work than it can handle. People bring in food, earth, grass and leaves from their backyards for testing. The results are published for everyone to see. At first the lab was able to provide results after three or four days, but its service has become so popular it can hardly keep up. "We have so many requests for strontium 90 now that it can take three months," says Prof Hikaru Amano, the lab's technical manager.

Amano confesses he was surprised that a group of amateurs could learn to do this job so accurately, but says it is important work.

People began to mistrust the nuclear contamination data provided by the government and by the Tokyo Electric Power Company (Tepco), which manages the nuclear plant, he says.

About 100 so-called "citizen laboratories" have since sprung up, but Tarachine is unusual because it monitors both gamma and beta rays - most can only measure gamma rays - and because it tests whatever people want, whether it's a home-grown carrot or the dust from their vacuum-cleaner.

The government does take regular readings from fixed points in Fukushima prefecture. It also check harvests and foods destined for the market - for example, all Fukushima-grown rice is required to undergo radiation checks before shipping.

But "if you want to know the level of strontium and tritium in your garden, the government won't do this measurement," says Suzuki. "If you decide to measure it yourself, you'll need 200,000-250,000 yen (£1,535, or \$2,200) for the tests, and ordinary people can't afford to pay these costs. We have to keep doing this job so that people can have the measurements they want." Tarachine only charges a small fee - less than 3,000 yen (£18, or \$27).

Image copyright Emanuele Satolli Image caption Mother of two Kaori Suzuki now spends much of her time at the laboratory

Tarachine also provides training and equipment to anyone who wants to do their own measurements. "Some of the mothers measure soil samples in their schools. It's fantastic, they really have become quite skilled at doing this," says Suzuki.

And the group keeps an eye on children's health. It runs a small clinic where doctors from all over Japan periodically come to provide free thyroid cancer check-ups for local children. Since screening began, 166 children in Fukushima prefecture have been diagnosed with - or are suspected of having - thyroid cancer. This is a far higher rate than in the rest of the country, although some experts say that's due to over-diagnosis.

And for parents who want to give their children a break from the local environment, Tarachine even organises summer trips to the south of the country.

Suzuki's own life has changed dramatically since 2011. "I was just a simple mother, enjoying her life. But ever since I started this, I've been spending most of my time here, from morning to night," she says. "I must admit, sometimes I think it would be really nice to have a break, but what we are doing is too important. We're providing a vital service.

"If you want to have peace of mind after an accident like the Fukushima one, then I believe you need to do what we're doing."

Kaori Suzuki spoke to Outlook on the BBC World Service

What is the easiest way of disposing of nuclear waste?

January 17, 2017

Designation of radioactive waste lifted

https://www3.nhk.or.jp/nhkworld/en/news/20170117_13/

Japan's environment ministry has lifted the radioactive designation it applied to a batch of waste after the 2011 Fukushima Daiichi nuclear accident.

About 200 kilograms of waste stored at a private facility in Yamagata Prefecture can now be disposed of as general waste.

People familiar with the matter say the radioactivity level of the waste was confirmed to be lower than the government-set level of 8,000 becquerels per kilogram.

The ministry said it sent a letter, dated January 13th, to notify the facility of its decision to lift the designation.

It is the first time the ministry has lifted the designation for waste kept by a private company in connection with the nuclear accident.

Last July, the ministry lifted the designation of radioactive waste stored in the city of Chiba, just outside Tokyo. It was the first case among municipalities storing radioactive waste from the Fukushima accident's fallout.

Ministry officials say as of September 30th last year, there was about 179,000 tons of waste designated as radioactive across the country.

Toshiba not only plagued by nukes troubles

January 21, 2016

Toshiba stuck with billions in unsold gas on top of nuclear troubles

<http://www.japantimes.co.jp/news/2017/01/21/business/corporate-business/toshiba-stuck-billions-unsold-gas-top-nuclear-troubles/#.WINS532Dmos>

Bloomberg

Toshiba Corp., already reeling from a crisis over its nuclear business that has sent its market value down by almost half, is seeking help from one of the world's biggest buyers of liquefied natural gas to avoid billions of dollars in potential losses if it can't sell American gas it holds.

Toshiba is working with Japan's Jera Co. to help it find buyers for gas that it has a contract to liquefy in the U.S. starting in 2019, said company spokesman Hirokazu Tsukimoto by phone. Since Toshiba hasn't yet secured long-term contracts, it may be forced to sell the LNG in spot markets at a loss, or opt not to process gas at Freeport LNG Development LP's plant in Texas, Tsukimoto said. Either way, it will pay a fixed tolling fee.

The potential for having unsold gas is another blow to Toshiba, which is already facing billions of dollars in losses at its nuclear business following a profit-padding scandal in 2015. The Japanese conglomerate said in a June filing it could face potential losses of ¥971.4 billion at its power and infrastructure division, which the spokesman said is mostly due to its LNG contract in the U.S.

"Finding new buyers is difficult in the current market structure," said Junzo Tamamizu, managing partner at Clavis Energy Partners LLC in Tokyo, by phone. "Toshiba could optimize its LNG sales by swapping cargoes and accessing various markets."

When Toshiba struck the LNG deal with Freeport in September 2013, the outlook for profit seemed bigger. Gas was selling in Asia at a larger premium over U.S. prices back then, making potential future American shipments more attractive.

A global gas glut has narrowed the price spread between the U.S. and Asia by more than half since Toshiba agreed to buy the right to liquefy 2.2 million tons a year of LNG for 20 years from the Freeport project. Toshiba has conditional agreements with multiple buyers to sell more than half of its output from the Freeport project, but none of them are legally binding, according to Tsukimoto. The company hopes to finalize its first deal "as soon as possible," he said.

Buyers of U.S. LNG, including Jera and Gail India Ltd., are seeking to resell or swap the fuel amid narrower profit margins. Jera signed a flexible contract to resell up to six LNG cargoes a year to the U.K.'s Centrica PLC last month. Tokyo Gas Co., Japan's second-biggest LNG buyer, is in talks with European firms to swap the super-cooled gas it exports from the U.S.

Jera, a joint venture between Tokyo Electric Power Co. Holdings Inc. and Chubu Electric Power Co., is helping Toshiba market LNG from the Freeport project, said spokesman Atsuo Sawaki. Jera has a separate contract to buy the fuel from another facility at the Freeport plant starting in 2018 and the two Japanese companies could further cooperate in their LNG operations, he said.

Under LNG tolling agreements like the one Toshiba signed with Freeport, buyers typically pay fixed fees for the ability to liquefy natural gas, regardless of the amount they export. The charge can range from \$2.25 to \$3.50 per million British thermal units, according to a November report published by Columbia University's Center on Global Energy Policy.

Toshiba's fixed tolling fees over 20 years could be as much as \$8.2 billion, according to calculations by Bloomberg, based on the Columbia University figures. Tsukimoto declined to disclose Toshiba's Freeport tolling charge.

"It's a bloody disaster," said Amir Anvarzadeh, Singapore-based head of Japanese equity sales at BGC Partners Inc. "It's another source of additional losses which the market had not been anticipating. The known unknown had been in the nuclear-related losses."

Last month, Toshiba surprised investors with the disclosure that a U.S. nuclear construction unit may result in billions of dollars in losses. Kyodo News reported the loss may reach ¥700 billion. The unexpected writedown follows a profit-padding scandal in 2015 that led to record losses and prompted the company to cut staff numbers and sell off businesses.

Toshiba has said it is considering raising funds by spinning off its memory chip unit. Private equity firms Bain Capital LP and Permira may be interested in purchasing a stake, which could be as much as 30 percent, Kyodo News reported, citing people it didn't identify. Flash memory for smartphones and solid state disk drives is one of the few bright spots in Toshiba's sprawling business portfolio, accounting for more than half of total operating profit in the first half of the fiscal year.

Toshiba is in talks with its auditor on the appropriate way to provision for the potential loss on its Freeport LNG, such as booking it incrementally over the 20-year lifetime of the fuel contract, according to Tsukimoto.

Japan unfit for nuclear projects

January 25, 2017

After years of setbacks, Japanese unfit for nuclear energy projects

<http://mainichi.jp/english/articles/20170125/p2a/00m/0na/006000c>

According to a well-known joke about the national traits of Europeans, it is heaven if the chefs are French, the engineers are German and the bankers are Swiss and it is hell if the chefs are British, the engineers are French and the bankers are Italian."

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- **【Related】** Toshiba could incur 700 bil. yen loss, asks state-owned bank for aid
- **【Related】** Embattled Toshiba needs to revamp nuclear plant business due to huge loss

As for the Japanese? They appear not suited to a particular field -- nuclear energy. And that is no joke. The development of nuclear technology as part of national policy and by private nuclear businesses has repeatedly experienced failure, causing problems to numerous people and wasting a massive amount of money.

Mutsu, Japan's first and only nuclear-powered ship which was launched in the early 1970s, suffered a radiation leakage and was decommissioned in 1992 after having only four experimental runs.

The government decided late last year to decommission the prototype fast-breeder reactor Monju in Fukui Prefecture, which has hardly been in operation for more than 20 years following a fire triggered by a sodium leak broke out at the facility in 1995.

Construction work on a spent nuclear fuel reprocessing plant in Rokkasho, Aomori Prefecture, got underway in 1993, but its completion was postponed 23 times and there are no prospects that it will be put in operation in the foreseeable future.

Roughly 5 trillion yen has so far been spent on nuclear projects in Japan.

In March 2011, a serious accident occurred at Tokyo Electric Power Co.'s Fukushima No. 1 Nuclear Power Plant after the complex was hit by a massive tsunami triggered by the Great East Japan Earthquake. Over 80,000 residents from areas near the atomic power station are still living outside the affected areas as evacuees. The costs of dealing with the nuclear crisis have already surpassed 20 trillion yen.

Meanwhile, Toshiba Corp. has added a new page to the negative history of Japan's nuclear development.

In 2006, Toshiba acquired Westinghouse Electric Co., a U.S. nuclear plant company, for over 600 billion yen. The deal was criticized as too costly, but Toshiba wanted to control the world nuclear power market. Toshiba's president at the time was upbeat about the takeover saying, "We'll conduct business aggressively."

Nevertheless, Toshiba will likely suffer nearly 1 trillion yen in losses from the deal because the electronics giant failed to find hidden problems involving its U.S. nuclear power unit. The world nuclear power market has shrunk since the outbreak of the Fukushima nuclear crisis. Following revelations that it had padded its profits through accounting irregularities, Toshiba downsized its workforce by more than 10,000 people, but its rehabilitation efforts are still insufficient. Its financial difficulties have even put the company's survival in jeopardy.

Physicist and technology commentator Kiyoshi Sakurai, who is well versed in technical problems and accidents involving nuclear plants, warned in a past Mainichi Shimbun interview, "Only a handful of those concerned with a certain project loudly underscore the significance of the project. These people could self-righteously go too far without understanding the project's objectivity or necessity."

His remarks remind the public of a past silly war (World War II).

More sadly, it is feared that Japanese people traumatized by the atomic bombing tend to stick to the peaceful use of atomic energy and have lost the capacity for calm and rational judgment.

After reviewing the above, one can see that Japanese people are unfit for nuclear energy development projects. (By Hideaki Nakamura, Editorial Writer)

Toshiba's nuclear losses

January 26, 2017

Toshiba's loss from U.S. nuclear power business swells to 680 billion yen

<http://mainichi.jp/english/articles/20170126/p2a/00m/0na/006000c>

Financially troubled Toshiba Corp. has incurred a loss of around 680 billion yen from its U.S. nuclear power business, the Mainichi Shimbun learned on Jan. 25.

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In response to this heavy deficit, Toshiba will hold a board meeting on Jan. 27 -- at which it will determine a plan for breaking off its flagship semiconductor business division, and enlisting external stakeholders -- in an attempt to avoid falling into excessive debt, as of the end of the business year ending March 2017. Initially, Toshiba anticipated losses of 480 billion yen, but the figure was actually confirmed to be around 200 billion yen higher -- at 680 billion yen -- following an appraisal in the U.S. that was completed last weekend. The main cause for this heavy loss is thought to be the further swelling of costs relating to Toshiba's nuclear power plant construction project in the U.S. Following this revelation, the company explained the situation to its main creditor banks earlier this week, and is planning to publicize details about the loss on Feb. 14. There is still a chance that the final loss figure may fluctuate further.

At the end of September 2016, Toshiba's equity capital was 363.2 billion yen. In autumn 2016, Toshiba anticipated net profits of 145 billion yen as of March 2017, but if the company's loss swells to 680 billion yen, then this will have a detrimental effect on Toshiba's equity capital, potentially resulting in a deficit or excessive debt. Therefore, the company is aiming to secure funds through enlisting external stakeholders for its split-off semiconductor business division, thereby increasing capital.

In its mission to secure funds by the end of March 2017, Toshiba is aiming to attract investment amounting to about 19.9 percent of the total, but no more -- because a capital contribution ratio of 20 percent or more requires procedures under the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade.

Toshiba has already approached several investment funds such as Kohlberg Kravis Roberts & Co. L.P. in preparation for a planned bidding process. The company has also apparently approached Canon Inc. and other firms to sound out investment in the region of 200 billion yen to 300 billion yen. The company is also looking to sell off shares and real estate related to its subsidiaries, including Toshiba TEC Corp. Furthermore, Toshiba is also considering selling off its Toshiba Hospital located in Tokyo's Shinagawa Ward.

Crane safety measures ignored

January 26, 2017

Proper precautions not taken on toppled crane

https://www3.nhk.or.jp/nhkworld/en/news/20170126_14/

The operator of a nuclear plant on the Sea of Japan where a crane toppled earlier this month had not followed specified precautions to prevent the accident.

The crane, which is over 110 meters long, collapsed at the Takahama nuclear power plant in Fukui Prefecture on Friday, January 20th. It fell onto a building housing nuclear fuel and damaged part of its roof.

The operator, Kansai Electric Power Company, believes strong winds were to blame. Officials told media the next day they had taken precautions before the incident.

They explained that the tip of the crane's boom--which reached about 100 meters in height--was secured by wire to a 5-ton weight placed on the ground.

They said the measure was intended to protect the crane against winds of up to about 150 kilometers per hour.

Local weather officials on Friday morning had warned of winds in the area reaching a maximum momentary wind speed of 126 kilometers per hour later in the night.

According to the crane manufacturer's manual, the crane's back should be placed windward in the event wind speed is expected to top 36 kilometers per hour.

The manual also says the boom of the crane should be lowered to the ground when winds of more than 108 kilometers per hour are likely.

Neither of these measures had been taken before the crane toppled.

Kansai Electric officials say they are looking into whether the measures they took were appropriate and are also checking for any damages and corrosion on the crane.

The crane was being used for construction work on the number 2 reactor as part of safety measures required for extending operation of the aged reactor.

TEPCO invests in the US

January 26, 2017

Tepco joint venture takes stake in New York state power project

<http://www.japantimes.co.jp/news/2017/01/26/business/corporate-business/tepco-joint-venture-takes-stake-new-york-state-power-project/#.WInyc32Dmos>

Kyodo

A joint venture of a Tokyo Electric Power Company Holdings Inc. unit and Chubu Electric Power Co. will participate in a gas-fired thermal power generation project in New York, the company has said.

Jera Co. has acquired a 44 percent stake in the operating company, Cricket Valley Energy Center, for the \$1.58 billion (¥180 billion) project, which will put a 1,100-megawatt power plant in Dover, 100 km northeast of New York City. That will make Jera its largest investor, the venture firm said Wednesday. The plant is scheduled to begin commercial operation in 2020, selling electricity on the wholesale market. It is the first time for JERA, established in April 2015, to take part in a new power generation business overseas.

The Development Bank of Japan will invest 8 percent of the money required.

Toshiba ready to sell microchip business

January 27, 2017

Toshiba, Desperate for Cash After Scandal, Will Sell Microchip Business

<http://www.asahi.com/ajw/articles/SDI201701277926.html>

By JONATHAN SOBLE/ © 2017 The New York Times

January 27, 2017 at 17:16 JST

TOKYO--Ill-fated investments in nuclear power projects by Toshiba of Japan have already precipitated an embarrassing accounting scandal at the company. Now the company is selling its most valuable business to try to undo the damage.

Toshiba, one of Japan's oldest and proudest technology conglomerates, said on Friday it would spin off its microchip division. The business makes the information-storing "brains" inside millions of smartphones, digital cameras and other devices, and it has been the biggest contributor to Toshiba's profits in recent years.

The move is evidence of Toshiba's desperation for cash after the punishing nuclear-related losses came to light last month.

In December, Toshiba warned it was preparing to write off "several billion U.S. dollars" because of ballooning expenses at its American nuclear subsidiary, Westinghouse. That followed Toshiba's admission in 2015 that it had inflated its earnings by \$1.2 billion over seven years--a scandal that company investigators attributed in part to nuclear-project managers, who they said had disguised faltering revenues and cost overruns.

Toshiba is expected to detail the extent of its write-downs next month. Analysts have suggested they could amount to \$4 billion to \$7 billion, enough to put Toshiba's future at risk. Banks have indicated they will keep lending money so the company can pay its bills, but without that lifeline, Toshiba, a 140-year-old business, could collapse.

Toshiba said it had not yet decided what form the semiconductor spinoff would take, or how much of the business it would sell to outsiders. But there is not much time to figure it out; the company said it wanted to complete the process by March 31, the end of its fiscal year.

Analysts estimate the semiconductor business could be worth between 1.5 trillion and 2 trillion yen, or \$13 billion to \$17 billion, if Toshiba sold all of it. One option would be to sell shares to the public, though a

private sale to another technology company would be quicker and easier to arrange, particularly if Toshiba chose to keep part of the company.

Damian Thong, an analyst at Macquarie Securities, said bringing in a minority investor was “clearly the default option” for Toshiba, which is eager to stay in the semiconductor business.

“Undermining that core business would be anathema in Japan, not just for Toshiba, but for the government and the whole technology ecosystem,” he said. “It needs to sell just enough to give creditors peace of mind, but not enough that it loses control.”

Some see broader national interests at stake.

Getting out of semiconductors entirely would not just deprive Toshiba of a crucial future revenue stream. If a foreign buyer swooped in, it would also take one of Japan’s few remaining semiconductor producers out of domestic hands. The business’s most successful technology, NAND flash memory, was developed by Toshiba decades ago.

One public declaration of interest in Toshiba has come from Canon, the Japanese camera company, which uses Toshiba’s chips in its products and bought a medical device producer Toshiba spun off in 2015.

Canon’s chairman, Fujio Mitarai, is a former head of Keidanren, the lobbying group representing Japan’s largest corporations, including Toshiba. He said last week that the semiconductor business was a valuable asset for Japan and “must be protected” and that Canon “would positively consider” investing.

Other potential buyers include Western Digital, the American semiconductor company, which works with Toshiba in some areas; Tokyo Electron, a Japanese company that produces equipment for semiconductor factories; and Foxconn of Taiwan, the contract manufacturer that recently took over Sharp, another ailing Japanese technology brand.

Terry Gou, Foxconn’s billionaire founder, said in an interview with Toyo Keizai, a Japanese business weekly, that he was interested in purchasing assets sold off by Toshiba, potentially including the semiconductor operation.

(Jan. 27, 2017)

Toshiba to review nuclear ops, spin off cash-cow chip business

January 27, 2017 (Mainichi Japan)

<http://mainichi.jp/english/articles/20170127/p2g/00m/0bu/068000c>

Toshiba Corp.'s headquarters are pictured in the Shibaura district of Tokyo's Minato Ward in this July 21, 2015 file photo taken from a Mainichi Shimbun helicopter. (Mainichi)

TOKYO (Kyodo) -- Toshiba Corp. said Friday it will review its struggling nuclear operation and spin off its cash-cow chip business, as it faces massive write-downs in the U.S. nuclear business.

Toshiba Chief Executive Officer Satoshi Tsunakawa said the company is looking to sell a stake of less than 20 percent in the new chip company to raise funds needed to offset a massive loss in the nuclear business and to avoid falling into negative net worth.

Its flash memory operation will be turned into a separate company at the end of March, pending approval at an extraordinary shareholders' meeting, the Japanese industrial conglomerate said.

"We will do whatever it takes, including increasing capital," Tsunakawa said at a press conference. "I really feel responsible (for what has happened). Whether or not I'll resign is left to the nominating committee's decision but will carry out my responsibilities till March" when the current business year ends.

The CEO said that Toshiba will re-examine its domestic and overseas nuclear operations to focus more on growth businesses such as decommissioning and tighten cost controls.

"We had been most committed to our nuclear operations in the energy business but that positioning is going to change," Tsunakawa said.

He added that he will directly oversee the nuclear division to enhance risk management and strengthen corporate governance, especially at its U.S. nuclear business which is the source of the huge write-downs. Last month, Toshiba said that it could book an impairment loss of "several billion dollars" in its U.S. nuclear business with plant project delays leading to cost overruns.

But the loss stemming from writing down the value of its nuclear division could reach 700 billion yen (\$6.2 billion), sources familiar with the matter subsequently said.

The write-down could wipe out the company's shareholder equity, which stood at 363.2 billion yen as of Sept. 30.

Toshiba said earlier this week that it will finalize the impairment loss by Feb. 14, when it reports financial results for the April-December period.

Toshiba, the world's second biggest producer of NAND flash memory after South Korea's Samsung Electronics, said the chip operation logged an operating profit of 110 billion yen for the year to March 2016, when the company posted a group operating loss of 708.74 billion. The chips are used in devices such as smartphones.

Actually, Toshiba has been undertaking sweeping restructuring steps since 2015 when an accounting scandal erupted. It has already sold another profitable operation, its medical equipment unit, to Canon Inc. and cut more than 30,000 jobs in an effort to avoid falling into negative net worth.

Its board on Friday approved spinning off its chip business, with possible buyers for the minority stake offered including U.S. data storage company Western Digital Corp. -- a joint operator of Toshiba's Yokkaichi flash memory plant -- and private equity firms such as Bain Capital and Permira.

Canon Chairman Fujio Mitarai also said last week that the maker of printers, cameras and office equipment is considering buying a stake in the memory chip maker.

Toshiba has also been scrambling to sell other assets and operations to raise an additional 300 billion yen, the sources said.

Earlier this week, its main creditor banks decided to maintain their loans to the struggling company until the end of February.

The Tokyo Stock Exchange has already put Toshiba shares on its watch list, making it hard to tap equity markets to bolster its capital.

Toshiba withdraws from nuke construction abroad

January 28, 2017

Toshiba pulling out of overseas nuclear reactor construction

<http://www.asahi.com/ajw/articles/AJ201701280024.html>

THE ASAHI SHIMBUN

Toshiba Corp. has decided to withdraw from the business of constructing nuclear reactors overseas after forecasting a huge deficit for its U.S. subsidiary in the business year ending in March.

The Tokyo-based electronics appliance maker said Jan. 27 the decision was taken to prevent business deficits from rising sharply again in the future.

"We focused on the nuclear business among all of our energy businesses, but this will change," Toshiba's president, Satoshi Tsunakawa, said in a news conference on Jan. 27. "This will entail a review of our overseas (nuclear) business."

Toshiba had failed to grasp huge losses that would result from the purchase of a company that was constructing nuclear reactors by its subsidiary, Westinghouse Electric Corp.

Reflecting on that failure, Toshiba plans to strengthen the supervision of its overseas nuclear business by putting related divisions under the direct control of the president.

In the future, Toshiba plans to concentrate only on designing, manufacturing and supplying nuclear reactors. It will withdraw from the reactor construction business because of the difficulties in forecasting construction costs.

"We will eliminate the risk from the construction business," Tsunakawa said.

Toshiba has aimed to win orders for 45 or more nuclear reactors overseas by fiscal 2030. However, it now plans to review that goal.

The deficit from the nuclear business in the United States is likely to increase to about 700 billion yen (\$6.1 billion) in this business year. Toshiba plans to announce the exact amount on Feb. 14 when it releases its financial statement for the period from April to December 2016.

See also :

<http://www.japantimes.co.jp/news/2017/01/28/business/corporate-business/toshiba-chairman-resign-struggling-u-s-nuclear-business/>

Toshiba chairman to resign over struggling U.S. nuclear business

<http://mainichi.jp/english/articles/20170128/p2g/00m/0bu/059000c>

TOKYO (Kyodo) -- Toshiba Corp.'s chairman, Shigenori Shiga, plans to resign over its expected massive write-down in the U.S. nuclear business, sources familiar with the matter said Saturday.

Shiga once served as president of Westinghouse Electric Co., its U.S. nuclear unit, which Toshiba has said could face a multibillion-dollar impairment loss with plant project delays leading to cost overruns.

The Japanese industrial conglomerate may announce his resignation on Feb. 14 when it reports its April-December financial results, they said.

Westinghouse Chairman Danny Roderick is also expected to step down while Toshiba President Satoshi Tsunakawa is likely to stay on, they said.

Shiga, Roderick and Tsunakawa took their current posts last June as Toshiba reshuffled its management following an accounting scandal that surfaced in 2015.

The post of Toshiba chairman is expected to remain vacant after Shiga's resignation.

Shiga was the vice president in charge of the power systems business when Westinghouse acquired CB&I Stone & Webster in late 2015, a U.S. nuclear plant construction firm at the heart of the massive write-down problem.

On Friday, Toshiba said it will review the nuclear operations and spin off its chip business to raise funds needed to cover the expected write-down.

Toshiba to spin off flash memory unit to offset US nuke loss

<http://www.asahi.com/ajw/articles/AJ201701280016.html>

THE ASSOCIATED PRESS

Toshiba Corp. says it will split its lucrative flash memory business to make up for losses from its troubled U.S. nuclear business, and is looking for a third-party capital injection.

The company said its board approved the plan Friday to sell an unspecified stake in its chip operation to make up for losses from its nuclear operations in the U.S.

Tokyo-based Toshiba is one of the major Japanese industrial conglomerates whose nuclear sectors have struggled since the 2011 Fukushima disaster. Last year it also said it could book an impairment loss of "several billion dollars" in its U.S. nuclear business.

The Kyodo News service quoted unnamed sources as saying Toshiba will sell less than a 20 percent stake in its highly profitable chip business to ensure its net worth remains positive.

"We will do whatever it takes, including increasing capital," Toshiba Chief Executive Satoshi Tsunakawa told reporters. "I really feel responsible," he said.

Last month, Toshiba said costs for completing Westinghouse Electric Co.'s purchase of the U.S. company CB&I Stone & Webster, Inc. will "far surpass" original estimates. Tokyo-based Toshiba also is enmeshed in a scandal over disclosures that company officials doctored accounting books for years after setting unrealistic earnings targets.

In March 2016, the company sold its medical unit to Japanese camera maker Canon Inc. for 665.5 billion yen (\$5.9 billion) on Thursday. It also has spun off its refrigerator and other "white goods" business, selling it to Chinese home appliance manufacturer Midea Group.

"Not even at the starting line"

January 30, 2017

Fukushima governor rebuts minister's 3/11 recovery claim

<http://www.asahi.com/ajw/articles/AJ201701300051.html>

By NORIYOSHI OHTSUKI/ Senior Staff Writer

FUKUSHIMA--Using marathon analogies, opinions on the current state of Fukushima Prefecture almost six years after the 2011 nuclear accident were running far apart between a national minister and local officials at a conference here to discuss the recovery process.

"If this is a marathon, Fukushima's recovery is 30 kilometers into the race," said Reconstruction Minister Masahiro Imamura at the beginning of the conference on reconstruction of quake damage and rebuilding in the prefecture on Jan. 28. "Now, we have come to the crunch."

A disgruntled Fukushima Governor Masao Uchibori refuted Imamura's optimistic analogy when he was interviewed by reporters after the conference's close.

"Some regions in the designated evacuation zones are not even at the starting line," said Uchibori. "Even in the areas where the designation is already lifted, recovery has only just begun."

The evacuation order in most of the surrounding area of the Fukushima No. 1 nuclear power plant is scheduled to be lifted at the end of March, apart from some "difficult-to-return zones" where radiation readings remain high.

The affected municipal governments are concerned that the central government's understanding of areas affected by the 2011 disaster has been fading as the sixth anniversary approaches in March.

Aside from the opening, the conference, chaired by Imamura, was closed to the media.

According to one attendee, Imamura told conference delegates that he put "Fukushima first."

Aping the catchphrase style of U.S. President Donald Trump and Tokyo Governor Yuriko Koike, Imamura apparently meant he prioritizes the recovery of the disaster-hit area of Fukushima Prefecture, but his choice of words failed to impress local officials.

The head of one municipal government said: "It is not a very good catchphrase to use here as it reminds us of the Fukushima No. 1 nuclear plant."

"I would like him to be more sensitive about expressions he uses," another complained.

Toshiba blames safety standards

January 31, 2017

31.01.2017_No22 / News in Brief

Toshiba Blames Stricter US Safety Standards For Increased Costs

<http://www.nucnet.org/all-the-news/2017/01/31/toshiba-blames-stricter-us-safety-standards-for-increased-costs>

31 Jan (NucNet): Toshiba is scaling back ambitions for its nuclear business, saying construction costs have increased since the 2011 accident at Fukushima-Daiichi because of the imposition of stricter safety standards in the US.

The Japan Atomic Industrial Forum (Jaif) said on 31 January 2017 that costs had increased for equipment, facilities and materials to meet the new standards, with construction periods also extended, leading to higher personnel costs.

Total construction costs rose to "substantially more" than what had been expected when the orders were accepted, Jaif said.

The announcement followed an emergency board meeting to discuss the survival of one of Japan's best known industrial conglomerates.

The company's president and chief executive officer, Satoshi Tsunakawa was quoted by the Asahi Shimbun as saying Toshiba – owner of Westinghouse and its CB&I Stone & Webster subsidiary – would concentrate on designing, manufacturing and supplying nuclear reactors. He said Westinghouse is “unlikely to carry out actual construction work for the future nuclear power plant projects to eliminate risk”.

Jaif said Westinghouse expects to incur a loss of as much as \$6.4bn (€5.9bn) on the construction of nuclear power plants in the US.

In December 2016, Toshiba said it may have to write off several billion dollars because of Westinghouse's purchase of CB&I Stone & Webster, a US construction firm that specialises in nuclear power projects. Toshiba said it needed to determine the value of the possible Westinghouse loss and the impact on its financial position.

Toshiba bought Westinghouse in 2006 for about \$5.4bn.

Westinghouse is supplying eight of its AP1000 reactor units for new-build projects, four in the US and four in China, and says “dozens more” AP1000 plants are planned around the world.

Related reports in the NucNet database (available to subscribers):

- Toshiba Expects Big Write-Down Over US Nuclear Acquisition (News in Brief No.256, 27 December 2016)

And now Westinghouse

January 31, 2017

Ailing Toshiba may sell Westinghouse to pare risks from nuclear business

<http://www.japantimes.co.jp/news/2017/01/31/business/corporate-business/ailing-toshiba-may-sell-westinghouse-pare-risks-nuclear-business/#.WJCEqvKDmos>

JJI

Struggling electronics and machinery giant Toshiba Corp. is considering selling U.S. subsidiary Westinghouse Electric Co. as one of its options in an ongoing review of its overseas nuclear operations, sources have said.

Toshiba is expected to suffer a loss of up to ¥680 billion from its U.S. nuclear plant business.

Against this background, Toshiba aims to eliminate risks of incurring further losses in the future by selling Westinghouse or lowering its equity stake in the unit that builds nuclear power plants, the sources explained.

At a news conference on Friday, Toshiba President Satoshi Tsunakawa unveiled a plan to review his company's nuclear operations abroad.

As it appears difficult for Toshiba to find a buyer of Westinghouse, which is reeling under heavy losses, the parent company is considering various options, including selling some of the unit's profitable segments, such as nuclear fuel business.

Toshiba bought Westinghouse for some ¥490 billion in 2006.

On the back of strong global demand for nuclear power plants, Toshiba had aimed to make nuclear operations its core business area along with semiconductors. Westinghouse is currently constructing four nuclear reactors in the United States and the same number in China.

Toshiba will announce on Feb. 14 a precise amount of its nuclear business loss and corrective measures, and its earnings for April to December last year.

Toshiba is set to separate its nuclear operations from its energy division and place them under the direct supervision of Tsunakawa.

Fukushima : "It is too soon to let go"

Video from NHK, January 28, 2017

Learning from Chernobyl children

<https://www3.nhk.or.jp/nhkworld/en/news/videos/20170126194429680/>

A Japanese woman has received a prestigious award for supporting children who suffered from what's considered the worst nuclear disaster in history.

She's using the recognition to send a message to people in her own country.

The Ukrainian embassy honored Mari Sasaki for the work her organization, the Chernobyl Children's Fund Japan, has done for the past 26 years.

"With our utmost love and respect, on behalf of the whole nation of Ukraine, President Petro Poroshenko gives the most prestigious decoration to you. I wish your honored activities continue."

"We've supported children suffering from diseases caused by the Chernobyl disaster for a long time. I feel you've recognized our efforts," Sasaki responds.

In 1986, a reactor in the former USSR exploded, sending huge amount of radioactive substances into the air and contaminating wide areas. It had severe repercussions on residents' health.

The Chernobyl Children's Fund started 5 years later when it was clear kids were still physically suffering. Sasaki joined in 1998, volunteering at hospices, and introducing Japanese culture to children undergoing operations.

The organization donated tons of relief supplies and equipment -- even an ambulance. It has supported almost 12,000 Ukrainian and Belarussian kids.

One of the main ways it has done that is by finding people in Japan to act as sponsors.

"I think we have a strong bond. My sponsor child can't use his hands properly, but he tries so hard to write. It makes me so happy," says one of the foster parents.

Sasaki visits Belarus and Ukraine every year to check in on the children.

One of them was Inna Polischuku. She underwent a thyroid operation at age 7. But it created complications. She later married and had a daughter, but died at the age of 24.

"They suffer from not just thyroid cancer, but brain cancer, liver cancer, or various diseases when they are still so young. The situation has continued for 31 years, and no one knows when it will end," explains Sasaki.

She says it shouldn't be an issue if their diseases aren't directly related to the accident. She says if there's even a slight possibility of a connection, they should be looked after.

After the Fukushima nuclear accident in 2011, the group decided to use their experience to offer support in Japan. They've been monitoring children's health and giving families information.

Sasaki feels most people in Japan are moving past concerns about the accident, but she warns it's too soon for that.

"People need to know that 3 decades after Chernobyl, the damage is still being felt. In Japan, we have to remember that we still don't know the full extent of the fallout even though it's already been 6 years. We need to keep watching the situation. "

Sasaki says the victims of the disasters need to be continually cared for, and she hopes the medal will serve as a reminder that the work will never end.

TEPCO in trouble with Canadian uranium producer

February 1, 2017

01.02.2017_No23 / News in Brief

Cameco To Pursue 'All Legal Right and Remedies' Over Tepco Uranium Cancellation

<http://www.nucnet.org/all-the-news/2017/02/01/cameco-to-pursue-all-legal-right-and-remedies-over-tepco-uranium-cancellation>

Uranium & Fuel

1 Feb (NucNet): Canada-based uranium producer Cameco said on 1 February 2017 that it will not accept a termination notice for a uranium supply contract from utility Tokyo Electric Power Company (Tepco). Cameco said in a statement it sees no basis for terminating the contract, considers Tepco to be in default, and will pursue "all its legal rights and remedies". According to Cameco, Tepco confirmed on 31 January 2017 it would not accept a uranium delivery scheduled for 1 February 2017 and would not withdraw the contract termination notice it provided to Cameco on 24 January 2017. Tepco alleges that an event of "force majeure" has occurred because it has been unable to operate its nuclear generating plants for 18 consecutive months due to government regulations arising from the Fukushima-Daiichi nuclear accident in March 2011. Tepco owns and operates the Fukushima-Daiichi station along with Fukushima-Daini and Kashiwazaki Kariwa. None of the 17 reactors at any of the three facilities are operating with the six Fukushima-Daiichi units shut down permanently. Tim Gitzel, president and chief executive officer of Cameco, said that for the past six years Cameco has worked "in good faith" with Tepco to restructure this contract and would continue to do so if there was any basis for a commercial resolution. "During the past week we tried to engage Tepco to obtain clarification given conflicting information we had received previously from them and only received confirmation of their intent to terminate the contract yesterday." Under the contract, Tepco has already received and paid for 2.2 million pounds of uranium since 2014. The termination would affect approximately 9.3 million pounds of uranium deliveries until 2028, worth approximately CAD \$1.3bn (€920m, \$994m) in revenue to Cameco, including about CAD \$126m in 2017, 2018 and 2019 based on 855,000 pounds of deliveries in each of those years. In 2017, Cameco's consolidated revenue, including the Tepco revenue, is expected to range between CAD \$2.1bn to CAD \$2.2bn. Cameco said it has sufficient financial capacity to manage any loss of revenue in 2017 as a result of the dispute.

Hitachi suffers heavy nuclear losses

February 2, 2017

Hitachi to take a 70 billion yen hit after U.S nuclear project fails

<http://www.asahi.com/ajw/articles/AJ201702020042.html>

By SATOSHI SEII/ Staff Writer

Electronics giant Hitachi Ltd. is set to lose tens of billions of yen this fiscal year due to the **withdrawal from a project to develop a new method of uranium enrichment by a joint venture in the United States.**

The loss, forecast by Hitachi on Feb. 1, was disclosed shortly after Toshiba Corp. made a similar announcement last month of deficits brought on by its nuclear power business.

Hitachi is expected to report a 70 billion yen (\$620 million) non-operating loss by the time books are closed for fiscal 2016 at the end of March, said Mitsuaki Nishiyama, a senior vice president of the Tokyo-based conglomerate, in a news conference on the company's performance through the third quarter.

The deficit is largely attributed to the joint venture GE Hitachi Nuclear Energy Inc. withdrawing from the uranium enrichment project. Due to this decision, Hitachi no longer expects any profits from the North Carolina-based company, of which it owns 40 percent and the rest by General Electric.

After allocating the losses, the value of Hitachi's share of the joint venture comes to only about 11 billion yen.

Despite the gloomy news, Nishiyama said that "there are no more large deficit risks."

Hitachi and GE were expecting more nuclear power plants to be built when they launched the joint fuel enrichment business, but orders have been sluggish across the globe, forcing the project to be shelved.

Nevertheless, Hitachi will be sticking with its nuclear power business. The company said that it plans to proceed with its project to build a plant in Britain by ensuring costs are thoroughly managed.

Toshiba to sell stocks in (US) Westinghouse and (British) Nugeneration Ltd.

February 2, 2017

Toshiba wants to dump shares in loss-making Westinghouse

<http://www.asahi.com/ajw/articles/AJ201702020038.html>

THE ASAHI SHIMBUN

Global giant Toshiba Corp. is planning to sell off a large proportion of its shares in a U.S. nuclear plant company that has incurred enormous losses.

Whether Toshiba can find a buyer for the shares in the ailing Westinghouse Electric Co. is uncertain.

Westinghouse Electric, of which Toshiba owns 87 percent of the shares, has largely contributed to Toshiba's prospect of a total deficit of at least 700 billion yen (\$6 billion) for fiscal 2016.

The recently revealed decision is expected to be included in the list of measures Toshiba will take to prevent a recurrence of the massive deficit the company is expected to announce Feb. 14.

Toshiba is hoping to retain just over 50 percent of Westinghouse Electric's shares.

Toshiba is also planning to sell stocks in the next few years of another subsidiary, British plant manufacturer NuGeneration Ltd., which is currently building three nuclear power plants in Britain.

Toshiba hopes to reduce its ownership of NuGeneration from the current 60 percent to under 50 percent before the scheduled launch of the plants in the mid-2020s.

Should radiation tests on food already be downsized?

February 3, 2017

Gov't plan to cut back radiation tests on produce draws mixed reactions

<http://mainichi.jp/english/articles/20170203/p2a/00m/0na/004000c>

The national government suggested it would scale back radiation tests on produce from Tokyo and 16 other prefectures affected by the Fukushima nuclear disaster, at a citizen-oriented event in Tokyo on Feb. 2, drawing mixed reactions from those in attendance.

- **【Related】** Protesters in Taiwan demonstrate against lifting of Japanese food import ban
- **【Related】** 5 years after Fukushima meltdowns, wild game animals still show cesium contamination
- **【Related】** Fukushima food products still shunned by 15 percent of consumers: survey

A draft policy was put together by government bodies including the Ministry of Agriculture, Forestry and Fisheries and the Consumer Affairs Agency and calls for allowing reduction of the tests from the 2017 fiscal year. The plan was influenced by the fact that there are now almost no cases of agricultural products that exceed the regulatory limit for radioactive cesium of 100 becquerels per kilogram. Under the draft policy, the Tokyo Metropolitan Government or any of the affected prefectural governments whose agricultural products were at half or less of the limit for the past three years could choose to scale back their tests.

Representatives from consumer groups and Fukushima producers were present at the Feb. 2 meeting. There were many voices of opposition against the draft policy, saying it was too early to cut back the tests, or that the requirement for scaling them back should be stricter than half or less of the regulatory limit. On the other hand, another attendee said that over the last five years the tests had cost around 4 billion yen and the money should "be spent toward more meaningful goals."

According to the testing results from fiscal 2011 through fiscal 2015, during the first two years the percentage of products like vegetables, fruits, tubers and meats from these areas with radioactive cesium in excess of the regulatory limit was between 0.1 percent and 5.9 percent, but since 2013 no excessive radiation has been detected.

The central government plans to hold an event to exchange ideas on the matter on Feb. 17 and get a better understanding of public opinion, before deciding on whether to actually downsize the testing.

Closed-door meetings & adulterated minutes

February 4, 2017

NRA's radioactive soil concerns omitted from minutes of closed-door meeting

<http://mainichi.jp/english/articles/20170204/p2a/00m/0na/017000c>

Concerns raised by the Nuclear Regulation Authority (NRA) on how radioactive soil from the Fukushima nuclear disaster would be reused were omitted from the minutes of closed-door meetings on the issue, the Mainichi Shimbun has learned.

- **【Related】** Nuclear watchdog questions Environment Ministry's plan to reuse radioactive soil
- **【Related】** Environment Ministry deleted some of its remarks from minutes on contaminated soil meet

It has already come to light that comments from the Ministry of the Environment that could be interpreted as attempting to manipulate the conclusions of the meetings were left out when the minutes were publicly released. The latest revelation means yet another important part of the minutes is missing.

The meetings were held by the Ministry of the Environment between January and May last year with various radiation experts in attendance. In June, the experts decided to manage and reuse contaminated soil with levels of radioactivity under 8,000 becquerels of cesium per kilogram in public construction projects.

Related legislation reads "When deciding on technical standards to prevent radiation-related health problems, the Radiation Council must be consulted." The publicly released meeting minutes quote an Environment Ministry representative as saying, "We need to think about the consultations with the council. When we discussed the issue with the NRA, it placed importance on our management (of the reused soil)." The quote shows that the ministry had talked to the NRA, which has jurisdiction over the council, about consultations with the body.

However, a source has disclosed that even though the ministry representative mentioned specific concerns brought up by the NRA, saying, "The Nuclear Regulation Authority was most concerned about where the soil will be used, and whether it might be used in the yards of regular households," this comment was omitted from the minutes.

Furthermore, in a rough draft of the minutes obtained by the Mainichi Shimbun, during the fourth round of Environment Ministry meetings in February last year, an official stated, "Afterwards we will ask all committee members to review the meeting minutes. After that, during next fiscal year, we are thinking of receiving your support in dealing with the Nuclear Regulation Authority." However, these words were deleted from the publicly released minutes.

The ministry was unable to give a satisfactory explanation for the concerns raised by the NRA, and so there has been no consultation with the Radiation Council to set health standards. However, according to both the ministry and the NRA, they have discussed the issue of consultations with the committee and agree they are not yet necessary.

According to internal rules created by the authority in December 2013, the Radiation Council only needs to be consulted when setting standards by law or relevant regulations. The standards decided through the ministry meetings are only "basic ideas" before they are set by law or regulations.

The ministry plans to reuse contaminated soil on an experimental basis. An NRA representative commented, "Once the plans for the experiment are in place, we understand that they will discuss the issue with us again."

Even the existence of the closed-door meetings was originally not announced, but after repeated requests for information disclosure, the ministry revealed the meeting minutes in August last year. While the release was called a "full release," comments including ones that could be taken as attempting to manipulate the discussion toward a conclusion of using 8,000 becquerels per kilogram as an upper limit when reusing soil were deleted from the records. After this came to light, Environment Minister Koichi Yamamoto said the minutes were "meeting summaries that only included the points of what was said."

Nukes enormously risky...financially

February 4, 2017

Dream of cheap, clean nuclear power is over

<http://www.japantimes.co.jp/opinion/2017/02/04/commentary/world-commentary/dream-cheap-clean-nuclear-power/>

by Noah Smith

Bloomberg

NEW YORK – For much of my life, I loved the idea of nuclear power. The science was so cool, futuristic and complicated, the power plants so vast and majestic. I devoured science fiction novels like “Lucifer’s Hammer,” where a plucky nuclear entrepreneur restarts civilization after a comet almost wipes us out. I thought of accidents like Three Mile Island and even Chernobyl as stumbling blocks to a nuclear future. Then, in 2011, two things happened. First, a tsunami knocked out the Fukushima No. 1 nuclear plant, forcing a mass evacuation and costing Japan vast sums of money. Second, I learned that progress in solar power had been a lot faster and steadier than I had realized. I started taking a closer look at whether nuclear was really the future of energy. Now I’m pretty convinced that my youthful fantasies of a nuclear world won’t come true anytime soon.

Safety is part of the problem — but a much smaller part than most people realize. The Fukushima nuclear crisis caused an enormous area to be evacuated. But recent research shows that the reaction might have been overdone — radiation levels for people exposed to the leak was substantially less than many had thought.

Meanwhile, countries are getting better at burying their nuclear waste. Finland is excavating a storage area deep underground that will hold radioactive waste safely for 100,000 years. France, which gets a lot of its energy from nuclear plants, also stores waste deep underground.

So nuclear hazards, while significant, are probably less than many believe. And compared with fossil fuels — which turn whole cities into toxic deathtraps, foul the atmosphere with gigatons of carbon and can lead to huge oil spills — nuclear looks downright clean.

The biggest problem with nuclear isn’t safety — it’s cost. The economics of nuclear are almost certain to keep it a marginal part of the energy mix, especially in the United States.

Many energy sources involve relatively small upfront costs. To increase solar power, just build more panels. Fracking also has lower fixed costs than traditional oil drilling. But nuclear's fixed costs are enormous. A new nuclear plant in the U.S. costs about \$9 billion to build — more than 1,000 times as much as a new fracking well, and more than 3,000 times as much as the world's biggest solar plant. Raising \$9 billion is a daunting obstacle. It's more money than Apple Inc., America's most valuable company, borrowed in 2016. The plucky young entrepreneur raising enough money to build his own nuclear plant in "Lucifer's Hammer" was pure fantasy; in reality, nuclear plants get built by giant corporations such as General Electric Co. and Toshiba Corp., with huge assistance from the government in the form of loan guarantees.

It's hard to raise money for projects with giant fixed costs and long horizons for repayment, because they're inherently risky. If something goes badly wrong with the project, all of that upfront money is lost. If competition makes a project uneconomical in five or 10 years in the future, the financiers will take a big loss. It's very hard to make predictions of more than a few years, especially about competing technologies. For nuclear power, that's the main risk — rapid advances in competing technologies. Solar power is already cheap and is plunging in price, while energy storage is also becoming much more affordable. If these trends continue, a nuclear power plant that's economical today will be out-competed in a few years. In other words, there will be no way the owner could recover the fixed costs.

What's worse, nuclear doesn't look like it's getting any cheaper. A recent paper by the Breakthrough Institute shows that in most countries, nuclear costs haven't changed much in recent decades: Constant or rising nuclear construction costs, matched with dramatically falling solar and storage costs, mean that anyone who ponies up the \$9 billion to build a nuclear plant today is taking a gargantuan risk. Another source of risk is safety — not the well-known threats of accidents and storage leaks, but the unknown unknowns. If terrorists figure out how to bomb nuclear plants, or hackers find ways to invade their software and cause them to melt down, the destruction could be catastrophic. But no one really knows how likely or remote those threats will be a decade from now. And even if those risks can be prevented, doing so will probably cause large unanticipated costs.

So nuclear power hasn't become the futuristic dream technology the old science fiction novels envisioned. Instead, it's a huge, risky government-subsidized corporate boondoggle. Someday we may have fusion power or small, cheap fission reactors, and the old dream of nuclear will be realized. But unless one of those breakthrough technologies comes to fruition, nuclear isn't the power of tomorrow.

Noah Smith is an assistant professor of finance at Stony Brook University.

Areva reaches agreement with MHI and JNFL

February 3, 2017

03.02.2017_No25 / News in Brief

<http://www.nucnet.org/all-the-news/2017/02/03/mhi-jnfl-to-buy-10-stake-in-areva-s-newco-nuclear-fuel-group>

MHI, JNFL To Buy 10% Stake in Areva's NewCo Nuclear Fuel Group

Uranium & Fuel

3 Feb (NucNet): French nuclear group Areva said today it had reached an agreement with Japan Nuclear Fuel Limited (JNFL) and Mitsubishi Heavy Industries (MHI) to buy a combined 10% stake in nuclear fuel group NewCo for €500m (\$538m).

The state-owned company also said that the capital of NewCo – which is being split off from Areva in a government-led rescue – remains open to other strategic investors.

Shareholders of parent company Areva SA and NewCo were expected vote on two capital increases for the companies today.

Last month EU anti-trust regulators cleared the French government's restructuring of Areva.

The European Commission said French plans to grant a capital injection of €4.5bn to Areva were in line with EU state aid rules.

In April 2016, France notified the Commission of a restructuring plan to restore its competitiveness.

The plan provides for various divestments, in particular the group's nuclear reactor business.

Areva, which is 86.5% owned by the French state, will instead focus its activities on the nuclear fuel cycle.

France plans to help Areva bear the cost of restructuring by injecting public capital of €4.5bn.

In September 2016, Areva began the transfer of its nuclear fuel cycle activities to NewCo.

Related reports in the NucNet database (available to subscribers):

- EU Clears State Capital Injection For Restructuring Of France's Areva (News in Brief No.8, 11 January 2017)

Strong opposition forces reduction of radiation limit



Black bags containing radioactively contaminated soil are seen piled up at a temporary storage site in Minamisoma, Fukushima Prefecture, in this June 2016 file photo. (Mainichi)

February 6, 2017

Radiation limit for contaminated soil in reuse experiment lowered after local opposition

<http://mainichi.jp/english/articles/20170206/p2a/00m/0na/009000c>

The radiation limit for soil contaminated by the Fukushima nuclear disaster in an experiment to reuse it in construction was **lowered from 8,000 becquerels per kilogram to 3,000 becquerels per kilogram** after strong opposition from a local mayor, it has been learned.

- **【Related】** Nuclear watchdog questions Environment Ministry's plan to reuse radioactive soil
- **【Related】** Environment Ministry deleted some of its remarks from minutes on contaminated soil meet
- **【Related】** Reuse of radioactive soil feared to trigger illegal dumping

The experiment is to be carried out at a temporary storage site in Minamisoma, Fukushima Prefecture, where around 1,000 bags of contaminated soil will be opened, made into construction foundations, and their radiation levels measured. The experiment will be done to check, among other things, whether the radiation exposure dose remains at the yearly limit of 1 millisievert or less. The experiment will cost around 500 million yen. The results are expected to be put together next fiscal year or later.

From soon after the Great East Japan Earthquake in 2011, municipalities including Minamisoma asked the national government to separate out lower-radiation level concrete and other debris for reuse in things like groundwork for coastal forests used to defend against tsunamis. At first, the Ministry of the Environment was negative about this, but in December 2011 the ministry allowed such reuse for debris with a limit of 3,000 becquerels per kilogram. According to documents released in response to a release of information request made by the Mainichi Shimbun, some 350,000 metric tons of this kind of debris have been used in Minamisoma and the towns of Namie and Naraha in projects such as groundwork for coastal forests.

Then in June last year, the Ministry of the Environment decided on a policy of reusing contaminated soil with 8,000 becquerels or less per kilogram in structures such as soil foundations for public works projects.

The same month, Minamisoma's Mayor Katsunobu Sakurai visited then vice-minister of the environment Soichiro Seki, where he questioned Seki about the 3,000 becquerel limit that had been used until being replaced by the 8,000 becquerel limit. Sakurai reportedly called for the 3,000 becquerel limit to be used in the upcoming experiment in Minamisoma.

Sakurai says, "If they don't use the 3,000 becquerel limit it is inconsistent. It doesn't make sense for a ministry that is supposed to protect the environment to relax the standards it has set."

The ministry confirmed to the Mainichi Shimbun that the experiment will only use soil up to the 3,000 becquerel limit, and said that the soil used will on average contain about 2,000 becquerels per kilogram.

Funding decommissioning

February 8, 2017

New gov't bill would make TEPCO reserve funds for Fukushima plant decommissioning

<http://mainichi.jp/english/articles/20170208/p2a/00m/0na/007000c>

The government on Feb. 7 submitted a legal revision bill to the Diet to stabilize funding for the decommissioning of the Fukushima No. 1 nuclear plant.

- **【Related】** Editorial: Video shows difficulty in decommissioning Fukushima nuke plant
- **【Related】** Radiation level at Fukushima reactor highest since 2011 disaster; grating hole found
- **【Related】** Radiation in Fukushima reactor containment vessel at deadly level: TEPCO

The subject of the revisions is the law establishing the Nuclear Damage Compensation and Decommissioning Facilitation Corp. (NDF), which manages the flow of funds to nuclear accident victims and the long process of dismantling the disaster-stricken Fukushima No. 1 plant.

The revisions will require plant operator Tokyo Electric Power Co. (TEPCO) to set aside funds secured through corporate restructuring with the NDF. The revisions will also give the Ministry of Economy, Trade and Industry the right to perform spot inspections of TEPCO offices to make sure the utility is making appropriate deposits.

Furthermore, the revision bill states that TEPCO must submit a reactor decommissioning plan and a financing scheme to fund that plan to the industry ministry every fiscal year. The NDF and the industry ministry will examine the utility's decommissioning project structure, and judge if it is being properly implemented.

The government is looking to have the revisions enter force within the year, with TEPCO capital transfers to the NDF to commence as early as next fiscal year, which starts on April 1, 2017.

Last year, the industry ministry increased the total estimated cost for Fukushima No. 1 plant decommissioning from 2 trillion yen to 8 trillion yen, in preparation for the difficult work of removing the melted fuel from three of the power station's reactors.

TEPCO's annual revenues currently stand at about 400 billion yen, while reactor decommissioning alone is expected to cost some 300 billion yen per year. Nevertheless, the industry ministry believes the utility should be able to cover its obligations if it can improve its earning power through management restructuring and the restart of the Kashiwazaki-Kariwa Nuclear Power Plant in Niigata Prefecture. However, the governor of Niigata Prefecture has been reluctant to green-light the restart of the Kashiwazaki-Kariwa reactors, and there is no projected schedule to bring the plant back on line. In addition, it is possible that the cost of decommissioning the Fukushima No. 1 plant reactors will continue to swell.

New spikes?

February 9, 2017

Lost in translation: Fukushima readings are not new spikes, just the same “hot mess” that’s always been there

<http://www.beyondnuclear.org/japan/2017/2/9/lost-in-translation-fukushima-readings-are-not-new-spikes-ju.html>

The ongoing Fukushima nuclear catastrophe has been back in the news lately following record high readings at the reactor site. Radiation levels were a maximum of 530 sieverts per hour, the highest recorded since the triple core meltdown in March 2011.

But upon further examination, the story has been misreported, in part due to mistranslation. In fact, according to Nancy Foust of SimplyInfo.org, interviewed on Nuclear Hotseat, there was no spike. High readings were in expected locations that TEPCO was only able to access recently. Therefore, the reading became evident because workers were getting closer to the melted fuel in more dangerous parts of the facility. In other words, it's not a new hot mess, just the same hot mess it's always been, pretty much from the beginning. The good news is nothing has changed. The bad news is – nothing has changed.

The confusion was initially caused by a translation error that SimplyInfo.org thinks occurred between the *Kyoto News* and *Japan Times*. Since this happened, Foust and her group have been trying to get news sources to correct the stories, with limited success.

The elevated radiation levels are inside containment (good news) in ruined unit 2 and were discovered using a camera, not proper radiation monitors. Therefore, the high reading may not be reliable since it is an estimate based on interference data with the camera. TEPCO is planning on sending in a robot properly equipped with radiation detectors to take a reliable reading. Although no date has been given, TEPCO indicates it expects to deploy the robot within 30 days or so.

Foust theorizes that the bulk of spent fuel is probably right below the reactor vessel burned into the concrete below. No one knows if fuel has gone into the ground water below that.

See also : **Fukuleaks** <http://www.fukuleaks.org/web/?p=16094>

Reconstruction Agency in need of improvement

February 11, 2017

EDITORIAL: Agency handling 3/11 rebuilding needs to break out of its mold

<http://www.asahi.com/ajw/articles/AJ201702110028.html>

The Reconstruction Agency has spent the past five years overseeing the rebuilding of areas in the northeastern Tohoku region that were devastated by the earthquake and tsunami disaster in 2011. It has passed the halfway point in the time frame for its mission as the organization is set to be disbanded by March 2021.

In areas engulfed by the tsunami, significant progress has been made toward achieving infrastructure-related goals, such as the building of public housing and roads.

But **efforts to rebuild local communities and industries have met with less success.**

In areas around Tokyo Electric Power Co.'s crippled Fukushima No. 1 nuclear power plant, reconstruction work is only now shifting into high gear as evacuations orders are being lifted one by one.

In seeking to fulfill its mission, the agency has so far placed priority on acting as a close partner of the affected areas and paying sympathetic attention to the voices of local governments and residents there. The challenge facing the agency now is whether it can move from that role and focus more on identifying and solving problems in areas that are hindering progress. The challenge will test the body's ability to play the leadership role in the reconstruction efforts.

The agency has stood out by devoting much energy into tasks that were not regarded as part of the government's domain prior to the disaster.

It has, for instance, promoted exchanges among people living in temporary housing and referred individuals wishing to be involved in the reconstruction of battered communities to local governments and other relevant organizations.

Since this is a field not familiar to the government, the agency has been cooperating actively with nonprofit organizations and businesses which have the necessary expertise.

But **the agency has failed to demonstrate to accurately assess the reality of disaster-hit areas and adjust its policy to the situation on the ground.**

In one typical case of mismatched policy, a huge tide embankment was built near an area where a housing reconstruction project had made little headway.

A program to provide state subsidies to support the rebuilding of plants and commercial facilities has been criticized by local communities for its inappropriate conditions with regard to employment and occupation. Critics say the conditions are out of tune with reality and make the program hard to use.

Most of the projects for rebuilding demolished areas and communities are overseen by other ministries and agencies. The Reconstruction Agency's role has been to act as coordinator in various projects.

But **many of the agency's employees were simply transferred from other ministries and agencies. It is hard not to suspect that their decisions and actions may be affected by their loyalty or the interests of the organizations from which they came.**

The Reconstruction Agency is regarded as having higher status than many other arms of the government. It has the power to issue recommendations to other ministries and agencies. But it has never used this power.

The head of the Reconstruction Agency is replaced almost annually, making it difficult for the body to enhance its presence.

The focus of the reconstruction work will shift to areas in Fukushima Prefecture around the stricken nuclear power plant.

Until now, the tasks related to compensation for victims of the nuclear calamity and decontamination of affected areas have been carried out by other ministries and agencies.

But the Reconstruction Agency should take the leadership role in efforts to regenerate local communities in these areas.

The 2011 disaster has sharply accelerated the aging and depopulation of affected local communities. But these problems are common to many areas around the nation.

The Reconstruction Agency's experiences can be very useful for future projects to revitalize local communities across Japan.

The agency needs to work in tandem with NPOs and businesses in carrying out its public duties.

We hope the body will expand the scope of this approach and set a model for government efforts to build a better future for the nation.

Toshiba's nuclear business

February 13, 2017

Toshiba's nuclear reactor mess winds back to a Louisiana swamp

by Jason Clenfield

<http://www.japantimes.co.jp/news/2017/02/13/business/corporate-business/toshibas-nuclear-reactor-mess-winds-back-louisiana-swamp/>

Bloomberg

If you want to understand why Toshiba Corp. is about to report a multi-billion dollar write-down on its nuclear reactor business, the story begins and ends with a onetime pipe manufacturer with roots in the swamp country of Louisiana.

The Shaw Group Inc., based in Baton Rouge, looms large in the complex tale of blown deadlines and budgets at four nuclear reactor projects in Georgia and South Carolina overseen by Westinghouse Electric Co., a Toshiba subsidiary.

On Tuesday, Toshiba is expected to announce a massive write-down, perhaps as big as \$6.1 billion, to cover cost overruns at Westinghouse, which now owns most of Shaw's assets. The loss may actually eclipse the \$5.4 billion that Toshiba paid for Westinghouse in 2006 and has forced the Japanese industrial conglomerate to put up for sale a significant stake in its prized flash-memory business. Toshiba had to sell off other assets last year following a 2015 accounting scandal.

Toshiba made a big bet on a nuclear renaissance that never materialized, in part because it couldn't build reactors within the timelines and budgets it had promised. The company had anticipated that Westinghouse's next-generation AP1000 modular reactor design would be easier and faster to execute — just the opposite of what happened. Now Toshiba may exit the nuclear reactor construction business altogether and focus exclusively on design and maintenance.

“There’s billions and billions of dollars at stake here,” says Gregory Jaczko, former head of the U.S. Nuclear Regulatory Commission (NRC). “This could take down Toshiba and it certainly means the end of new nuclear construction in the U.S.”

Toshiba confirmed it will unveil a “huge loss” on Tuesday; a spokeswoman declined further comment.

In January, Satoshi Tsunakawa, Toshiba’s president, said the company may sell shareholdings, real estate or other assets if needed to strengthen its balance sheet. “We will keep considering all options as needed and promptly, and take all necessary steps,” he said at a briefing in Tokyo.

When Toshiba bought Westinghouse a decade ago, the U.S. Congress had just started dangling loan guarantees and other incentives aimed at restarting a dormant nuclear industry. In 2008, Westinghouse signed deals to build four new reactors for utilities Southern Co. and Scana Corp., the first U.S. nuclear plants since the 1979 accident at Three Mile Island to be approved for construction by regulators.

In a 2015 interview with Bloomberg Businessweek, Southern Chief Executive Officer Thomas Fanning said his utility’s two reactor projects at Plant Vogtle in Georgia were “going to be one of the most successful mega-projects in modern American industrial history.”

To build that mega-project, Westinghouse turned to Shaw, a newcomer to nuclear work. Shaw was founded in 1987 by James Bernhard Jr., who distinguished himself through his deal-making acumen. He got his start paying \$50,000 for the assets of a bankrupt pipe fabricator, and grew via one acquisition after another. In 2000, Bernhard swooped in at a bankruptcy auction and, during an 18-hour bidding war, bought Stone & Webster Inc., a once-venerable engineering firm that had already agreed to a deal with a much bigger rival.

Stone & Webster had built the Massachusetts Institute of Technology’s campus and many of the country’s nuclear plants from the 1950s to the 1970s, but it was a shell of its old self when Bernhard bought it. Still, the name gave Shaw new credibility in the nuclear field, which it capitalized on to win all of Westinghouse’s contracts. “They weren’t necessarily qualified, but they had the heart and the go-get-them to take it on,” says Jeffrey Keller, a retired construction project controller who worked for Shaw at its nuclear sites.

Building nuclear reactors is a tall order, given the regulatory complexity and consortium of contractors required to get the job done. And in fairness to Westinghouse and Shaw, plenty of other companies have missed deadlines.

“Nuclear construction on-time and on-budget? It’s essentially never happened,” said Andrew J. Wittmann, an analyst who covers the industry for Robert W. Baird & Co.

It’s easy to see why Shaw wanted Toshiba’s business, but harder to understand why Toshiba chose Shaw. More established contractors simply may not have wanted the work, but Bernhard also used his deal-making skills to sweeten the agreement by taking on a chunk of Toshiba’s debts temporarily.

“If you want to have a business, you have to get plants up and running, so they went forward even if it wasn’t a perfect match — that was the calculation for Toshiba,” says David Silver, an analyst at Morningstar in Chicago.

Westinghouse executives hoped its AP1000 reactors’ main components, or modules, could be built efficiently at specialized work yards, then shipped to a plant site and snapped together like enormous steel-and-concrete Legos.

On top of that, the U.S. government in 2005 gave nuclear developers a package of tax credits, cost-overrun backstops, and federal loan guarantees. In the next few years, U.S. utilities filed dozens of applications to build new reactors.

After Westinghouse hired Shaw to handle construction in 2008, it wasn’t long before the company’s work came under scrutiny. By early 2012, NRC inspectors found steel in the foundation of one reactor had been

installed improperly. A 300-ton reactor vessel nearly fell off a rail car. The wrong welds were used on nuclear modules and had to be redone. Shaw “clearly lacked experience in the nuclear power industry and was not prepared for the rigor and attention to detail required,” Bill Jacobs, who had been selected as the state’s monitor for the project, told the Georgia Public Service Commission in late 2012.

The troubles were only starting. At Southern’s two new reactors in Georgia — a massive construction site on the edge of the Savannah River — thousands of workers have logged more than 25 million man-hours, yet the project is years behind schedule.

Originally planned to open in 2016 and 2017, they’re now slated for 2019 and 2020 — and that may be a stretch. To hit the new targets, Westinghouse would have to accelerate the pace of work to “over three times the amount that has ever been achieved to date,” Jacobs, the state’s project monitor, told the utility commission last year.

In November, Westinghouse said 33.4 percent of the construction was complete, but a utility supervisor with Southern who asked not to be identified said he’s skeptical. The hardest part of the project — the reactor’s center — has just started, he said.

Just as problems began to surface, in July 2012 Shaw agreed to sell itself for \$3.3 billion to Chicago Bridge & Iron Co., a much larger engineering firm that wanted in on the envisioned nuclear renaissance. But three years later, with little progress to show for itself, CB&I decided to cut its losses. It sold the bulk of Shaw’s assets to Toshiba for \$229 million, accepting the significantly lowered price in exchange for shedding liabilities related to the projects.

But in April 2016, four months after the deal closed, Toshiba concluded it had miscalculated and accused CB&I of inflating Shaw’s assets by \$2.2 billion, and asked to renegotiate. CB&I balked and sued Toshiba for breach of contract last July. A preliminary decision in December ruled in favor of Toshiba’s request to renegotiate. CB&I has appealed that ruling.

“We remain confident this issue will come to a resolution favorable to CB&I,” said Gentry Brann, a spokeswoman for the company. CB&I has argued that at least some of the reactor problems have been because of Westinghouse and its AP1000 designs.

Westinghouse has turned to another construction contractor, Fluor Corp., to help get its projects back on track, but it’s too early to say how much progress they’re making. Meanwhile, the NRC continues to press Westinghouse about problems with its AP1000 design after a neutron shield block, which contains radiation, failed during testing. Regulators will hold a hearing this week at which Westinghouse is expected to explain its work on the issue; Toshiba, meanwhile, declined to comment.

Those troubled projects in the American South are now threatening the Japanese icon’s foundations. The value of Toshiba shares has been cut in half over the last six weeks, wiping out more than \$7 billion in market value.

And what of the U.S. nuclear renaissance? Westinghouse’s projects for Southern in Georgia and Scana in South Carolina had once been viewed as part of a rebirth of the U.S. atomic power industry. However, stumbles with those projects, the nuclear disaster in Fukushima and a flood of cheap natural gas that lowered U.S. power prices made new reactors increasingly expensive and risky. Of the 30-odd applications for new reactors that started in the mid-2000s, only the four Westinghouse units have gone forward. One figure who seems to have come out of the Westinghouse mess pretty much unscathed is Shaw founder Bernhard. He completed the sale of his firm to CB&I in 2013, pulling in \$3.3 billion for himself and other shareholders. Bernhard, whose stake was worth about \$50 million at the time of the sale, now runs a private equity firm in Baton Rouge.

“They got out whole and then some,” said Silver, the analyst with Morningstar. “It was a good deal for them but only because they were able to unload the hot potato.”

Inside damage doesn't show

February 13, 2017

Six years on, signs of progress seen in visit to Fukushima plant

<http://www.asahi.com/ajw/articles/AJ201702130029.html>

By HISASHI HATTORI/ Senior Staff Writer

A recent tour of the Fukushima No. 1 nuclear power plant shows not only the damage to the reactors, but also the progress that has been made in improving the working environment for those preparing the site for decommissioning. (Video footage by Hisashi Hattori)

On visiting the crippled Fukushima No. 1 nuclear power plant in 2013, journalists had to don full facial masks and bulky protective clothing because of the high radiation levels.

But on a tour on Feb. 6, except for a face mask and vest containing a dosimeter, **normal clothing was all that was necessary to enter the site.**

While conditions on the grounds of the plant may have improved in the six years since the catastrophic triple meltdown, there are many signs that the decommissioning of the reactors will be drawn out.

A group of reporters from Japan National Press Club member organizations were given a tour on Feb. 6 of the plant site by officials of Tokyo Electric Power Co., the plant operator.

The latest visit was the fifth for the writer since the March 2011 nuclear accident triggered by the Great East Japan Earthquake and tsunami.

A bus carrying the journalists stopped on a hill overlooking the four crippled reactor buildings. The No. 1 reactor building stood about 80 meters away. The dosimeter held by the TEPCO official accompanying the group recorded a reading of 0.149 millisieverts per hour.

The No. 1 reactor building was once covered to prevent the spewing of radioactive materials because the roof had been blown off in a hydrogen explosion in the early days of the accident. However, that cover was removed in November 2016.

"The ceiling remains collapsed," the TEPCO official said.

The rubble remains untouched on the upper part of the building, and the metal skeleton was clearly visible.

At the No. 3 reactor, work continues to remove spent nuclear fuel from the storage pool located at the upper part of the reactor building. The bent metal parts that looked like a bird's nest have been removed, but cracks remain along the thick concrete side walls of the building, exposing the metal reinforcement. The exterior of the No. 2 reactor building is largely unchanged from before the accident, mainly because the building was not hit by an explosion.

However, images from the interior painted a different picture. In January, what appeared to be a lump of melted nuclear fuel that flowed out of the pressure vessel was captured on camera. An analysis of the

images led to the estimation that a maximum radiation level of 530 sieverts per hour existed in the containment vessel.

On Feb. 9, another robot was forced to abort its operations and the estimate was made that the radiation level was 650 sieverts per hour.

Experts now believe that an unexpectedly large amount of melted nuclear fuel has likely spread throughout the reactor.

The exponentially large level of radiation is apparent when a comparison is made with the 1999 accident at the JCO uranium reprocessing facility at Tokai, Ibaraki Prefecture, when a criticality accident led to the deaths of two workers. At that time, the radiation level for the individual exposed to the lower level was between six to 10 sieverts.

The bus took the group close to the No. 2 and No. 3 reactors.

Approaching within a few meters of the No. 3 reactor building, the TEPCO official said that the radiation level on the dosimeter was 0.245 millisieverts per hour.

While that may seem infinitesimal next to the No. 2 reactor containment vessel, exposure to it for five hours would be equivalent to the annual limit of 1 millisievert considered safe for humans.

Rubble in the area is being removed by remotely controlled cranes and other heavy equipment. Robots are used for indoor work, but progress is hampered by the high radiation levels.

The plant site at one time included an abundance of forested area, but that has been cut down.

In its place are rows upon rows of tanks up to three floors high holding radiation-contaminated water.

There are a total of about 1,000 such tanks on the plant grounds.

From immediately after the nuclear accident, water continued to be pumped into the three reactors to cool the melted nuclear fuel. In addition, groundwater flows into the reactor building basements at a rate of about 150 tons a day. While the volume of water flowing in has decreased, it still becomes contaminated by radiation.

No decision has yet been made on what to do about the approximately 960,000 tons of contaminated water on the plant site.

On the other hand, noticeable steps have been taken to improve the working environment of those preparing the reactors for decommissioning.

At one time, radioactive materials that had spewed out of the reactor buildings fell on large areas of the plant site. Those areas have been largely covered with mortar, reducing the areas of the plant grounds where workers must wear full face masks and protective clothing to prevent inhaling or swallowing radioactive materials.

"Workers can move around in light clothing at about 90 percent of the plant site," said Shunji Uchida, the head of the Fukushima No. 1 plant.

A nine-floor facility that can accommodate 1,200 workers has been constructed where workers can take a break and rest. A new headquarters building has also been constructed with an atrium.

Toshiba selling majority stake in flash memory operations

February 14, 2017

Toshiba says it is now considering selling majority stake in flash memory spinoff

<http://www.japantimes.co.jp/news/2017/02/14/business/corporate-business/ailing-toshiba-looks-book-%c2%a5500-billion-april-december-loss/>

by Shusuke Murai

Staff Writer

Toshiba Corp. President Satoshi Tsunakawa said Tuesday the ailing electronics giant may sell a majority stake in its flash memory operations to cover losses caused by massive write-downs on its U.S. nuclear business.

During a news conference at the firm's headquarters in Tokyo, Tsunakawa said the company will, as far as its flash memory business is concerned, take "the best measures possible by thinking flexibly," adding that he doesn't rule out compromising all of its stake.

"Anything is possible," he said.

The bidding process for funding the spinoff started earlier this month. Toshiba had initially planned to unload a less than 20 percent stake in order to maintain influence over the operation. The massive losses in its U.S. nuclear business have forced it to reconsider those plans.

The president's comments came after Toshiba postponed the announcement of its financial results for the April-December period by one month, citing ongoing reviews by lawyers and an independent auditing firm.

Instead, the company released a loss estimate, saying it now expects its April-December group net losses to be about ¥500 billion, as it plans to write down some ¥700 billion tied to the U.S. nuclear unit, Westinghouse.

At the news conference, Tsunakawa apologized for the delay in announcing the earnings results.

"I apologize for causing tremendous trouble for everyone," he said. "I take my responsibility seriously, especially for not being able to announce earnings results on the closing day."

The company is obligated to publish results within 45 days after the end of the previous accounting period — Tuesday in this case — but can file for an extension with authorities.

"We have submitted a request to extend the deadline" by one month for the earnings report, Toshiba said in a statement. The longer than expected review period is needed to investigate information from a whistleblower linked to its U.S. nuclear business, it said.

Toshiba also announced that Chairman Shigenori Shiga will step down to take responsibility for huge losses linked to Westinghouse. The resignation takes effect Wednesday.

The firm's shares plunged 9.45 percent to ¥226.2 at one point Tuesday after postponing the release. The shares closed 8.0 percent lower at ¥229.8.

"In a normal, uncontentious situation, the board signs off on something that's already been prepared weeks ago," said Damian Thong, an analyst at Macquarie Group Ltd. "In Toshiba's case, they're doing it all in a moving airplane, everything is in motion."

Toshiba has missed financial filing deadlines before. The company pushed back its earnings announcements twice in the wake of an accounting scandal in 2015, delaying the release by about four months. Toshiba's \$5.4 billion acquisition of Westinghouse in 2006 was a bet on the future of nuclear

power and a way to balance volatility of its chip-making operations with steady long-term revenue. The vision soured after the 2011 Fukushima nuclear crisis sapped demand for atomic power and the company's next-generation AP1000 modular reactor technology proved difficult to implement. Toshiba is now under pressure to come up with a plan for shoring up its balance sheet, which was already under strain from the profit-padding scandal in 2015 that led to restructuring, record losses and asset sales.

Toshiba has put up for sale a significant stake in its flash memory operations and is considering other ways of raising cash.

The heavy net loss will be another blow to the company that reported a group net loss of ¥479.4 billion just a year earlier.

Information from AFP-Jiji, Bloomberg added

Toshiba chairman quits

February 14, 2017

Toshiba chair resigns as company reports huge nuke loss

<http://www.asahi.com/ajw/articles/AJ201702140075.html>

THE ASSOCIATED PRESS

Japanese electronics and energy giant Toshiba Corp. says its chairman is resigning to take responsibility for problems that will result in a 713 billion yen (\$6.3 billion) loss in its nuclear business.

Toshiba warned that all the estimates it announced Tuesday may change "by a wide margin" because of uncertainties. Earlier, it delayed the reporting its official financial results by a month, citing problems with auditing related to the losses in its nuclear business. That sent Toshiba stock tumbling 8 percent in Tokyo trading.

The company said Shigenori Shiga, the chairman, will step down from the board but will remain as a Toshiba executive. He is quitting over the big losses related to the acquisition of CB&I Stone & Webster by its U.S. nuclear unit, Westinghouse.

Toshiba said its net worth was in the negative, at minus 191 billion yen at the end of last year, but it said it hopes to take measures to fix that by the end of March.

Toshiba chairman quits over nuclear loss

<http://www.bbc.com/news/business-38965380>

Toshiba chairman Shigenori Shiga has resigned, hours after the Japanese conglomerate revealed details of a multi-billion dollar loss.

Earlier Toshiba had delayed issuing its results, but it then said it was set to report a net loss of 390bn yen (\$3.4bn) in the year to March 2017.

The company said it expected to take a 712.5 billion yen (\$6.3bn, £5bn) writedown at its US nuclear business.

The situation has led some analysts to warn the company's future is at risk.

Mr Shiga was stepping down "to take management responsibility for the loss", the firm said.

Shares fell by as much as 9% on Tuesday and have lost about 50% since late December, when it first warned about the extent of the problems.

Chip deal

The losses are linked to a deal done by its US subsidiary, Westinghouse Electric, when it bought a nuclear construction and services business from Chicago Bridge & Iron in 2015.

Assets that it took on are likely to be worth less than initially thought, and there is also a dispute about payments that are due.

It has already announced plans to sell off part of its profitable memory chip business to raise funds. It is the second largest chip maker in the world, behind Samsung.

The company is still struggling to recover after it emerged in 2015 that profits had been overstated for seven years, prompting the chief executive to resign.

UK nuclear plant in limbo

As well as detailing its losses, Toshiba is also widely predicted to announce it is scaling back its global nuclear business - and possibly getting out of the sector altogether, apart from its operations in Japan.

Among the projects that would affect heavily is a planned new power plant in Cumbria in the UK.

Toshiba has a 60% stake in Nugen, the company which has the contract to build the Moorside plant.

Should the Japanese company pull out of the project, the UK would have to look for other backers to step in, with South Korea's Kepco a likely candidate.

Any changes to the current plans are expected to seriously delay the project, thought to eventually provide as much as 7% of the UK's energy needs.

The GMB union has asked for early clarification on the project's future and its senior organiser for Sellafield, Chris Jukes, said: "Brexit should be a perfect opportunity to demonstrate conclusively a better way for nuclear in West Cumbria.

"For 70 years Whitehaven has been a hub for nuclear. The West Cumbria area needs the regeneration a new plant would bring."

Toshiba again: A very confused situation

February 14, 2017

Delays, confusion as Toshiba reports \$6 billion nuclear hit and slides to loss

<http://uk.reuters.com/article/us-toshiba-accounting-idUKKBN15T033>

By Makiko Yamazaki | TOKYO Tue Feb 14, 2017 | 10:52am GMT

After a day of delays and confusion, Japan's Toshiba Corp (6502.T) said on Tuesday it expected to book a \$6.3 billion hit to its U.S. nuclear unit, a writedown that wipes out its shareholder equity and will drag the group to a full-year loss.

Hours earlier on Tuesday, the battered conglomerate rattled investors by failing to release its earnings on schedule, saying initially it was 'not ready' and then announcing later it needed more time to probe its Westinghouse nuclear business after internal reports uncovered potential problems.

The figures eventually released were numbers that have yet to be approved by its auditor and Toshiba cautioned investors that a major revision was possible. Fully audited numbers are now not due till March 14 after the firm was granted a reprieve for its formal filing by Japanese regulators.

Toshiba also said in a statement it could push harder to raise capital, including selling a majority stake in its memory chip arm. Previously, it had sought to sell just under 20 percent of its prize business.

"Finally now people are starting to recognize that internal control problems, the accounting issues and governance issues are very real and no longer abstract," said Zuhair Khan, an analyst at Jefferies in Tokyo. "They impact the viability of the company."

Shares in the group slid 8 percent, putting the company's market value at 973 billion yen (\$8.6 billion), less than half its value in mid-December. Just under a decade ago, the firm was worth almost 5 trillion yen. It also announced the first top-level departure since the nuclear problems were uncovered in December: chairman Shigenori Shiga, a former Westinghouse boss brought in to the top role last year after a \$1.3 billion accounting scandal in 2015 shook up Toshiba's upper ranks.

Toshiba said it expected to book a 499.9 billion yen (\$4.4 billion) net loss for the nine months to December, and a 390 billion yen net loss for the full year.

It also ended 2016 with negative shareholder equity due to the 712.5 billion yen nuclear writedown - a charge that was first flagged in December last year.

Toshiba said it would withdraw from nuclear plant construction overseas. **Reuters reported this month that Toshiba was seeking at least a partial exit from ventures in Britain and India, a blow to both countries' nuclear plans.**

WESTINGHOUSE WOES

In an earlier, separate statement, Toshiba outlined concerns at its Westinghouse business, the U.S. nuclear unit bought from the UK government a decade ago.

Internal reports, Toshiba said, suggested controls at Westinghouse had been "insufficient" and it needed to look into whether senior managers at Westinghouse exerted "inappropriate pressure" during discussions over a U.S. deal to buy the company at the heart of its cost overruns, it said.

"We judged that it would take about a month for external lawyers ... to conduct these further probes and for the independent auditors to review the results," Toshiba said.

A source briefed on the matter said Toshiba had not been able to immediately secure the approval of its auditor, PricewaterhouseCoopers Aarata. The source asked not to be identified because he is not allowed to talk the media.

PricewaterhouseCoopers Aarata declined to comment, citing client confidentiality. Toshiba declined to comment on the audit process.

For a graphic on Toshiba businesses, [click here](#)

(Reporting by Makiko Yamazaki, Taiga Uranaka, Taro Fuse, Ayai Tomisawa, Tom Wilson and Naomi Tajitsu in Tokyo, Jane Chung in Seoul and Rishika Sadam in Bengaluru, Umesh Desai in Hong Kong; Writing by Tim Kelly; Editing by Clara Ferreira Marques and Edwina Gibbs)

Kashiwazaki-Kariwa restart: More lies from TEPCO

February 15, 2017

TEPCO admits error in screening report

https://www3.nhk.or.jp/nhkworld/en/news/20170215_18/

Japan's Nuclear Regulation Authority is demanding an explanation from Tokyo Electric Power Company.

TEPCO has admitted to submitting inaccurate information from calculations 3 years ago on plans for restarting two of its nuclear reactors in Niigata Prefecture.

The regulator is in the final stages of screening the No.6 and 7 reactors at TEPCO's Kashiwazaki-Kariwa plant.

The reactors must meet new government requirements introduced after the 2011 Fukushima disaster.

Regulators gathered on Tuesday for discussions with TEPCO about buildings at the plant to be used as headquarters in an emergency.

TEPCO officials admitted one of the buildings lacked the necessary quake-resistance in all 7 of the company's tests.

They had earlier said that the building had failed 5 of the 7 tests. They said they would not use the building.

They blamed the discrepancy on a failure by the civil engineering department to convey test results to the equipment design department.

The regulators noted the lack of coordination between TEPCO departments on the impact of soil liquefaction on breakwaters.

They called the mistakes unacceptable, and they're demanding that TEPCO provide details and countermeasures.

Toshiba

February 15, 2017

Risk of breaking up hangs over Toshiba after 712 billion yen nuclear loss in U.S.

<http://mainichi.jp/english/articles/20170215/p2a/00m/0na/012000c>

Toshiba Corp. has effectively fallen into a capital deficit as the result of a 712.5 billion yen (\$6.3 billion) write-down for its U.S. nuclear business in its Feb. 14 outlook for the April-December 2016 period.

- **【Related】** Toshiba expects 712 bil. yen U.S. nuclear loss, delays earnings report
- **【Related】** Q&A session with Toshiba president: Troubled firm to focus on in-house probe
- **【Related】** Toshiba postpones release of April-Dec. earnings by up to 1 month

Suspensions of inappropriate accounting in connection with its U.S. nuclear business have arisen and its woes have increased, with the company being forced to delay its formal earnings report that it was supposed to release on Feb. 14.

The company is considering spinning off its semiconductor business and selling the majority of shares to cut debt, but by shedding its well-performing businesses, Toshiba faces the risk of breaking up.

When prodded in a news conference on Feb. 14 over the decision to invest 5.4 billion dollars (roughly 610 billion yen) in U.S. nuclear power plant manufacturer Westinghouse Electric Co. in 2006, Toshiba Corp. President Satoshi Tsunakawa evasively responded, "It is difficult to say that it was correct."

At the time of the purchase, Toshiba had expected an increase in nuclear exports to emerging countries due to increased demand for nuclear power. However, the market environment changed completely as a result of the meltdowns at Tokyo Electric Power Co.'s Fukushima No. 1 Nuclear Power Plant in March 2011. Westinghouse took orders for four nuclear reactors in 2008, but costs surged when authorities tightened regulations, and Toshiba was left having to book a 712.5 billion yen write-down in its latest forecast.

As of the end of December 2016, Toshiba's liabilities exceeded its assets by 191.2 billion yen. The biggest concern with regard to the company's survival is whether it will be able to secure capital through the sale of businesses by the end of March to recover.

At first, Toshiba had painted a scenario of spinning off its flash memory business for smartphones and other devices and unloading 19.9 percent of shares in the new company to acquire at least 200 billion yen. But under its Feb. 14 outlook, the electronics giant indicated it was now considering selling a majority stake.

"Selling all (of the shares) is a possibility," Tsunakawa said. "We're thinking flexibly."

Flash memory is the core of Toshiba's semiconductor business, accounting for about 30 percent of its sales. The reason Toshiba had sought to sell under 20 percent of shares in the business was to maintain the initiative and preserve what has been a valuable source of earnings.

However, bidding companies and investment funds had remarked that there was little appeal in a capital investment of under 20 percent. It is therefore possible that bids could remain low, leaving the company in a "crunch," according to one Toshiba source.

If Toshiba sells a bigger stake, then it will find some temporary relief through the shoring up of its capital base, but such a move would diminish its earning capacity over the long run.

Since Toshiba became embroiled in an accounting scandal in 2015, its management woes have deepened, and the company booked a consolidated net loss of 460 billion yen for the business year ending in March 2016. Toshiba sold its medical equipment unit, which had high potential, for 665.5 billion yen and also sold its white goods business in a bid to get back on its feet. But in spite of this, the company expects to see red ink for the latest business period. If it releases its semiconductor business, a jewel of the company, there will be practically nothing left to serve as Toshiba's main pillar.

In the meantime, Toshiba plans to scale back its overseas nuclear business, which was the cause of its massive losses for the latest business period. Hosokawa has suggested that the company is considering

selling its shares in Westinghouse. However the global environment in which nuclear operations stand is tough, and finding a buyer remains a difficult task.

Confusion erupts as Toshiba delays earnings report

<http://mainichi.jp/english/articles/20170215/p2a/00m/0na/018000c>

Investors focused their gaze on Toshiba Corp. on Feb. 14 as they waited for the electronics giant to announce huge losses for the April-December period in connection with its U.S. nuclear business at noon the same day. But shortly after noon, a message appeared on the company's website stating, "This is notice that we have been unable to make a disclosure at 12 o'clock today."

- **【Related】** Risk of breaking up hangs over Toshiba after 712 billion yen nuclear loss in U.S.
- **【Related】** Toshiba expects 712 bil. yen U.S. nuclear loss, delays earnings report
- **【Related】** Q&A session with Toshiba president: Troubled firm to focus on in-house probe

When there was no further announcement for some time afterward, Toshiba's shares began to slide rapidly. A news conference with Toshiba President Satoshi Tsunakawa was scheduled for 4 p.m. and reporters crowded into Toshiba's headquarters. But just before 3 p.m., when the venue was supposed to open, Toshiba announced that it would delay its earnings report. A public relations official in the lobby of the company headquarters announced in a loud voice, "We still don't know when the news conference will be held," creating a stir among the reporters assembled there.

The market was taken aback by the delay, with observers expressing surprise that the company was unable to announce its earnings at such a stage.

In giving a reason for the delay, Toshiba said that there had possibly been "inappropriate pressure" from the management of its U.S. nuclear unit Westinghouse Electric Co., which it bought in 2015, when evaluating the value of its assets.

On Jan. 8 and 19, a Westinghouse executive blew the whistle on the company in letters to the Westinghouse president, and an investigation by lawyers and an auditing company took time so the company was unable to settle its accounts. If the information from the whistleblower is accurate it could affect accounting details, so Toshiba decided that there was no option but to delay the announcement on its earnings.

Tsunakawa finally opened the news conference at about 6:30 p.m., but when it came to the details of the whistleblower's report, a Toshiba executive who was present repeatedly stated that the matter was under investigation and so the company would refrain from commenting.

At the same time, Toshiba stated that it took the unusual step of announcing its earnings in the form of an outlook including massive losses as the amount was unlikely to change significantly based on the results of an investigation into the whistleblower's report, according to a Toshiba official.

A major accounting scandal was uncovered at Toshiba in 2015. On that occasion, the company had not managed to announce its earnings on time, and there were two delays. Then president Hisao Tanaka resigned to take responsibility, and the company had been working on management reconstruction and restoring trust.

With the announcement of the massive losses on its U.S. nuclear business, however, Toshiba has once again waded into management woes and on Feb. 14, the company gave news that Chairman Shigenori

Shiga, who was in charge of the nuclear unit would step down to take responsibility. Yet while Shiga bore a large responsibility he did not appear at the news conference by Tsunakawa.

It is extremely rare for a company listed on the first section of the Tokyo Stock Exchange to repeatedly suddenly delay announcements on its earnings, and it appears that for Toshiba, the path to restoring trust will be a long one.

Toshiba's woes an opportunity for Japan to change energy policy?

February 15, 2017

Toshiba's woes weigh heavily on government's ambition to sell Japan's nuclear technology

<http://www.japantimes.co.jp/news/2017/02/15/national/toshibas-woes-weigh-heavily-governments-ambition-sell-japans-nuclear-technology/#.WKQrfvKDmos>

by Eric Johnston
Staff Writer

OSAKA – Toshiba's announcement that it will write down nearly ¥712.5 billion in losses involving its U.S. nuclear unit, Westinghouse, is seen as a major setback for the government's strategy of selling Japanese nuclear power technology abroad.

Over the past four years, Prime Minister Shinzo Abe, the Ministry of Economy, Trade, and Industry, and nuclear power players, such as Toshiba/Westinghouse, General Electric-Hitachi and Mitsubishi Heavy Industries, have promoted Japanese nuclear reactor technology worldwide.

Attempts to increase exports came even as concern within Japan grew over nuclear safety following a triple meltdown at the Fukushima No. 1 plant in the wake of the March 11, 2011 earthquake and tsunami. The efforts also came as questions were being raised about the total cost of nuclear power compared with other energy sources.

Japanese firms have attempted, with little success, to sell their technologies in countries as diverse as France, Vietnam, India, Turkey, Hungary, Poland, Slovakia, the Czech Republic and the United Arab Emirates. In June 2016, Toshiba said its goal was to win orders for 45 or more nuclear reactors overseas by 2030.

But Tuesday's announcement by Toshiba came a few weeks after the company announced it would not take any new construction orders for nuclear reactors, and that it would focus instead on maintenance and decommissioning operations.

That decision effectively ended a decade-long effort by Toshiba, which began when it acquired a majority stake in Westinghouse in 2006, to make nuclear reactors a viable export business.

It follows greater than projected construction costs for four Westinghouse AP1000 next-generation nuclear reactors in the U.S. that have run billions of dollars over budget and are three years behind schedule. Original plans called for their startup around 2019 but that could be delayed.

Yoshimitsu Kobayashi, chairman of the Japan Association of Corporate Executives, told reporters at a regular news conference on Tuesday that promoting nuclear reactor exports was a necessary strategy, but one that needed to be reviewed.

"The nuclear power industry requires huge amounts of money for safety," Kobayashi said.

"Given such high costs, we have to think about whether just one company can succeed. We have to keep strong technology in Japan, but we need to rethink how to create a union of private firms" in the nuclear business, he said.

But with Toshiba's problems and the growing use worldwide of other, cheaper energy sources, including some renewables, anti-nuclear groups see an opportunity for Japan to change its basic policy.

"The Japanese government's nuclear export policy was built on a combination of a poor understanding of the global energy market and self-delusion, said Shaun Burnie, a senior nuclear specialist at Greenpeace Germany who is currently based in Japan.

"The sooner the government and industry realize there is no future for nuclear power either domestically or in exports, the sooner they can concentrate on the energy technology of the future — renewables."

Kashiwazaki-Kariwa restart: More lies from TEPCO (2)

February 15, 2017

TEPCO gave inaccurate explanations about seismic capacity of nuke plant

<http://mainichi.jp/english/articles/20170215/p2a/00m/0na/014000c>

Tokyo Electric Power Co. (TEPCO) has revealed that it had explained that the seismic capacity of a quake-absorbing structure called an "important anti-seismic building" at its Kashiwazaki-Kariwa Nuclear Power Plant in Niigata Prefecture was higher than it actually was, now saying that it "cannot withstand all types of shaking."

TEPCO made the revelation at a Nuclear Regulation Authority (NRA) safety screening session on the plant's No. 6 and 7 reactors on Feb. 14. The "important anti-seismic building" is supposed to serve as a frontline base in the event of a nuclear accident. The NRA demanded TEPCO give detailed explanations about how and why it provided the wrong information, saying harshly, "We cannot overlook this." According to the NRA and other sources, of the so-called "standard earthquake vibrations," the strongest seismic shaking the important anti-seismic building is assumed to withstand, TEPCO had said that the structure would not be able to withstand some types of seismic shaking. But the utility reversed its previous explanations at the latest meeting, saying, "It cannot withstand all types of shaking." TEPCO said that it had given the wrong explanation because the facts had not been conveyed from its section that analyzed the seismic capacity of the building in 2014 to the division in charge of attending safety screening session meetings.

A TEPCO official apologized at the meeting, saying, "We are sorry that our information sharing was insufficient."

Key Niigata nuclear plant building may not be quake-proof

<http://www.asahi.com/ajw/articles/AJ201702150042.html>

THE ASAHI SHIMBUN

Tokyo Electric Power Co. has revealed that a key building at its Kashiwazaki-Kariwa nuclear power plant may not be able to withstand even half of the assumed strongest seismic shaking, contrary to its earlier assurances.

TEPCO's disclosure came Feb. 14 during a screening by the Nuclear Regulation Authority (NRA) for the restart of the No. 6 and No. 7 reactors at the nuclear power plant in Niigata Prefecture, which is the world's largest.

The utility became aware of the possibility in 2014, but the information was not shared within the company. TEPCO reported to the NRA that the building can withstand temblors of 7, the highest category on the Japanese seismic intensity scale.

The building is designed to serve as an on-site emergency headquarters in the event of a severe accident, such as one caused by an earthquake.

An earthquake that occurred off the Chuetsu region of Niigata Prefecture in 2007 badly damaged the Kashiwazaki-Kariwa plant.

In response, TEPCO constructed the building in question in 2009. At that time, it said the structure could withstand the assumed biggest earthquake motions that are 1.5 times stronger than those described in the Building Standards Law.

In 2014, the utility checked the building's anti-quake capabilities again. It found that it may not be able to withstand horizontal movements triggered by even half the anticipated strongest earthquake, and that it could collapse into the side of an adjacent building.

That information was not conveyed to the company's division in charge of the NRA's screening, and thus escaped notice from NRA inspections.

Takafumi Anegawa, managing executive officer of TEPCO, apologized, saying, "We did not conceal the possibility. The in-house liaison was insufficient."

An NRA official said, "Information is not shared in the company. Lessons from the accident at the Fukushima No. 1 nuclear power plant are not utilized."

"It's only now the damage has been photographed"

HELEN CALDICOTT: The Fukushima nuclear meltdown continues unabated

Helen Caldicott 13 February 2017, 6:30am 25

<https://independentaustralia.net/politics/politics-display/helen-caldicott-the-fukushima-nuclear-meltdown-continues-unabated,10019>

Dr Helen Caldicott, ***explains recent robot photos taken of Fukushima's Daiichi nuclear reactors: radiation levels have not peaked, but have continued to spill toxic waste into the Pacific Ocean — but it's only now the damage has been photographed.***

RECENT reporting of a huge radiation measurement at Unit 2 in the Fukushima Daichi reactor complex does not signify that there is a peak in radiation in the reactor building.

All that it indicates is that, for the first time, the Japanese have been able to measure the intense radiation given off by the molten fuel, as each previous attempt has led to failure because the radiation is so intense the robotic parts were functionally destroyed.

The radiation measurement was 530 sieverts, or 53,000 rems (Roentgen Equivalent for Man). The dose at which half an exposed population would die is 250 to 500 rems, so this is a massive measurement. It is quite likely had the robot been able to penetrate deeper into the inner cavern containing the molten corium, the measurement would have been much greater.

These facts illustrate why it will be almost impossible to “decommission” units 1, 2 and 3 as no human could ever be exposed to such extreme radiation. This fact means that Fukushima Daichi will remain a diabolical blot upon Japan and the world for the rest of time, sitting as it does on active earthquake zones. What the photos taken by the robot did reveal was that some of the structural supports of Unit 2 have been damaged. It is also true that all four buildings were structurally damaged by the original earthquake some five years ago and by the subsequent hydrogen explosions so, should there be an earthquake greater than seven on the Richter scale, it is very possible that one or more of these structures could collapse, leading to a massive release of radiation as the building fell on the molten core beneath. But units 1, 2 and 3 also contain cooling pools with very radioactive fuel rods — numbering 392 in Unit 1, 615 in Unit 2, and 566 in Unit 3; if an earthquake were to breach a pool, the gamma rays would be so intense that the site would have to be permanently evacuated. The fuel from Unit 4 and its cooling pool has been removed. But there is more to fear.

The reactor complex was built adjacent to a mountain range and millions of gallons of water emanate from the mountains daily beneath the reactor complex, causing some of the earth below the reactor buildings to partially liquefy. As the water flows beneath the damaged reactors, it immerses the three molten cores and becomes extremely radioactive as it continues its journey into the adjacent Pacific Ocean.

Every day since the accident began, 300 to 400 tons of water has poured into the Pacific where numerous isotopes – including cesium 137, 134, strontium 90, tritium, plutonium, americium and up to 100 more – enter the ocean and bio-concentrate by orders of magnitude at each step of the food chain — algae, crustaceans, little fish, big fish then us.

Fish swim thousands of miles and tuna, salmon and other species found on the American west coast now contain some of these radioactive elements, which are tasteless, odourless and invisible. Entering the human body by ingestion they concentrate in various organs, irradiating adjacent cells for many years. The cancer cycle is initiated by a single mutation in a single regulatory gene in a single cell and the incubation time for cancer is any time from 2 to 90 years. And no cancer defines its origin.

We could be catching radioactive fish in Australia or the fish that are imported could contain radioactive isotopes, but unless they are consistently tested we will never know.

As well as the mountain water reaching the Pacific Ocean, since the accident, TEPCO has daily pumped over 300 tons of sea water into the damaged reactors to keep them cool. It becomes intensely radioactive and is pumped out again and stored in over 1,200 huge storage tanks scattered over the Daichi site. These tanks could not withstand a large earthquake and could rupture releasing their contents into the ocean.

"Once a prestigious company that boasted cutting-edge technology"

February 16, 2017

VOX POPULI: Toshiba's plight shows nuclear business is now a treacherous bet

<http://www.asahi.com/ajw/articles/AJ201702160039.html>

Vox Populi, Vox Dei is a daily column that runs on Page 1 of The Asahi Shimbun.

What appears to be a lump of melted nuclear fuel is discernible in a photo, released late last month, of the interior of the crippled No. 2 reactor at the Fukushima No. 1 nuclear power plant.

The high radiation level inside the reactor would be lethal to humans so a small robot was expected to start inspecting the interior on Feb. 16. (The robot started inspection around 7:50 a.m.)

The robot is marked with the name TOSHIBA.

While leading the nation in the dismantling of nuclear reactors, Toshiba Corp. has aggressively pursued nuclear power plant construction overseas through its U.S. affiliate.

But on Feb. 14, the company announced a projected loss of 712.5 billion yen (\$6.3 billion) in its nuclear business. To survive, Toshiba will have to sell off its profitable businesses piecemeal. To be sure, the company is in for massive restructuring.

The 2011 nuclear accident at the Fukushima plant was one of the indirect causes of Toshiba's losses.

Around the world, tighter regulations have been applied to nuclear power plants because of safety concerns, and Toshiba's four nuclear plant construction projects in the United States became far more costly than anticipated.

The company has only itself to blame for underestimating the consequences of the Fukushima disaster.

I dropped in at the Toshiba Science Museum in Kawasaki, Kanagawa Prefecture, the other day. Its impressive array of exhibits included Japan's first electric refrigerator, washing machine and vacuum cleaner. There was even a portable personal computer, said to be the first of its kind in the world.

Once a prestigious corporation that boasted cutting-edge technology, I wonder how long Toshiba's decline will continue.

Overseas, Siemens AG of Germany withdrew from the nuclear business after the Fukushima accident, and France's Areva SA is said to be struggling.

Toshiba's massive losses remind us anew that the end is drawing near on the era of lucrative nuclear businesses.

A long, tough road lies ahead for the decommissioning of Fukushima's nuclear reactors. I feel for Toshiba workers who are engaged in this task while their company languishes.

It will soon be six years since the Fukushima disaster. The days of having to confront the gravity of that accident are far from over.

--The Asahi Shimbun, Feb. 16

NHK video: NRA wants explanations from TEPCO

February 16, 2017

TEPCO Admits Test-Result Error NHK Video

Japan's nuclear watchdog is demanding an explanation from the Tokyo Electric Power Company after it submitted inaccurate plans for the restart of one of its plants.

The regulator is in the final stages of screening 2 of TEPCO's reactors at a plant in northern Japan. They must meet government requirements introduced after the 2011 Fukushima nuclear disaster.

Regulators met with TEPCO officials on Tuesday, and discussed buildings at the plant that would be used as a headquarters in an emergency. The company had initially said one of them didn't pass a number of quake-resistance tests 3 years ago.

But it admitted it actually failed all 7 tests -- meaning the building may not be quakeproof. That information was not passed on to the section in charge of a report that was submitted to the regulator. The prefecture's governor, Ryuichi Yoneyama, says he'll demand the company submit an investigative report.

"We have to trust TEPCO, but its explanation is now doubtful. We want the company to take responsibility for the error and explain things to us," he said.

The regulator is demanding TEPCO provide more details about how the error occurred.

"This is very regrettable," said Kashiwazaki Mayor Masahiro Sakurai. "I conditionally support plans to restart the plant. But now I think stricter terms are needed."

Will Democratic Party distinguish itself from LDP on nukes?

February 17, 2017

Democratic Party delays decision on changing target date for abolishing nuclear power

<http://www.japantimes.co.jp/news/2017/02/17/national/politics-diplomacy/democratic-party-delays-deciding-2030-target-make-japan-nuclear-power-free/>

Jiji, Kyodo

The Democratic Party is split on whether to move up its target for ending the nation's reliance on nuclear energy by a few years to 2030.

The opposition party's leadership is facing resistance from its members and a key supporter, the Japanese Trade Union Confederation (Rengo), which includes an electric power industry union.

The DP on Thursday began deliberations on the matter at a meeting of its energy and environment panel that brought together some 70 members.

More than 20 people made remarks, with about half expressing opposition to the idea, including former education minister Yoshiaki Takaki.

Until now, the DP had been aiming to end Japan's reliance on nuclear energy within the decade after 2030. It had also accepted that some nuclear plants could be restarted under certain conditions.

The party is now leaning toward moving up the target date as it hopes to underscore its differences with Prime Minister Shinzo Abe's Liberal Democratic Party and strengthen cooperation with the Japanese Communist Party, the Social Democratic Party and the Liberal Party.

A source close to DP President Renho said it has become difficult to highlight positions different from the LDP because the Abe administration has copied some of its policies, such as "equal pay for equal work" and a state-backed scholarship program.

Thus, to distinguish itself from the LDP, the leadership has judged it necessary to change its position on when to abolish nuclear energy. Abe said nuclear is an "important base-load power source" even after the 2011 triple core meltdown at the Fukushima No. 1 power plant.

The Abe administration, however, also claims it would like to reduce the nation's dependence on nuclear as much as possible.

But in the face of resistance, the DP is expected to delay the decision until it sets its platform for the next House of Representatives election. At a news conference Thursday, Renho acknowledged there would be a delay.

"We maintain the belief that we want to show our view at the party convention" on March 12, she said.

Also on Thursday, Renho met with Rengo President Rikio Kozu to discuss the key nuclear policy target, where she failed to win his support.

Rengo also postponed a planned regular meeting with DP executives that was slated for Friday.

On Friday, she met with officials of the Federation of Electric Power Related Industry Worker's Unions of Japan, also a Rengo member, where she sought its cooperation but declined to comment on whether she succeeded.

Democratic Party faces rift over advancing target to rid Japan of nuclear power

<http://mainichi.jp/english/articles/20170217/p2a/00m/0na/010000c>

The largest opposition Democratic Party (DP) held a meeting of its energy and environment research committee on Feb. 16 to accelerate debate on advancing its target of making Japan a nuclear power-free nation in 2030 instead of sometime in the 2030s.

The DP leadership under President Renho plans to unveil the objective as a centerpiece of a party convention on March 12, but proponents of nuclear energy within the party balked. The Japanese Trade Union Confederation (Rengo), the party's major backer, directly conveyed its complaint about the nuclear power-free target to Renho on Feb. 16.

During the research panel meeting, one lawmaker after another expressed dissatisfaction over moving up the nuclear power-free target year, saying, "Is it OK for the party's executives by themselves to make a decision on such an important issue? The party could break up." Renho and more than 60 DP lawmakers attended the meeting.

Koichiro Gemba, head of the panel, said after the meeting, "There were many opinions about discussing the issue more fully." He added that he was not sure what the party leadership can say about the controversial nuclear policy at the party convention.

The internal rift came to the fore earlier this month when Gemba, acting on the intentions of Renho and other party executives, told a meeting of the energy and environment research committee that the party will spell out the 2030 target year in a draft nuclear power-free bill in light of ongoing energy and electricity-saving efforts. The DP leadership is particular about the target because it wants to re-emphasize its nuclear power-free campaign by advancing an end to nuclear power from its earlier target of sometime in the 2030s, as championed in the party's plank for the 2012 House of Representatives election.

But Gemba's remarks about advancing the target to the year 2030 surprised proponents of nuclear energy and those skeptical about ending Japan's dependence on nuclear power within the party. House of Councillors member Masao Kobayashi, a former member of the Federation of Electric Power Related Industry Workers Union of Japan, and others told DP Secretary-General Yoshihiko Noda on Feb. 9, "If we review (the target) based on a foregone conclusion, it would cause confusion within the party."

Repercussions have also reverberated through supporting labor unions. Rengo President Rikio Kozu met with DP chief Renho on Feb. 16 and expressed concern, saying, "DP must not waver over its policy. Simply moving up the goal even without a road map for ending reliance on nuclear power sometime in the 2030s would be a big blow to the DP." Rengo postponed Feb. 17's scheduled regular meeting with the party.

But Renho has been in contact with various labor unions to win their understanding of the 2030 target. She told a news conference on Feb. 16 that she still hopes to declare an end to Japan's nuclear power in 2030 at the party convention on March 12, a day after the sixth anniversary of the 2011 Great East Japan Earthquake, tsunami and subsequent Fukushima nuclear disaster.

NHK Video: TEPCO admits test result error

February 16, 2017

TEPCO Admits Test-Result Error

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"This is very regrettable," said Kashiwazaki Mayor Masahiro Sakurai. "I conditionally support plans to restart the plant. But now I think stricter terms are needed."

Greenpeace new report : No return to normal

« Our conclusion is that the highly complex radiological emergency situation in Iitate, and with a high degree of uncertainty and unknown risks, means that there is no return to normal in Iitate, Fukushima prefecture. » [executive summary]

http://www.greenpeace.org/japan/Global/japan/pdf/NRN_FINweb4.pdf

No return to normal :

House Case Studies of the Current Situation
and Potential Lifetime Radiation Exposure
in Iitate, Fukushima Prefecture

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February 2017

End of new build for largest nuclear builder

February 2, 2017

Toshiba-Westinghouse: The End of New-build for the Largest Historic Nuclear Builder

<https://www.worldnuclearreport.org/Toshiba-Westinghouse-The-End-of-New-build-for-the-Largest-Historic-Nuclear.html>

On 28 January 2017, Japanese media reported that Toshiba will not take any new nuclear reactor orders, "a move that would effectively mark its withdrawal from the nuclear plant construction business". Toshiba, owner of Westinghouse—no other company built more nuclear plants in the world— "will focus on maintenance and decommissioning operations".

Three days later, on 31 January 2017, the Wall Street Journal confirmed that "Toshiba Corp. plans to stop building nuclear power plants", a decision that "could have widespread ramifications for the future of the nuclear-power industry", and reported that Toshiba's chairman, Shigenori Shiga, and Danny Roderick, a Toshiba executive and head of Westinghouse, are expected to step down by mid-February 2017.

The decision to withdraw from the business of constructing nuclear reactors is mainly due to liabilities arising from multi-billion dollar cost overruns on two U.S. reactor construction projects in Georgia and South Carolina. First indications from Toshiba on losses were disclosed in December 2016. The crisis has in part been triggered by an accounting and legal dispute between the nuclear division Westinghouse Electric Company LLC and Chicago, Bridge and Iron (CB&I) over the valuation of the nuclear construction company CB&I Stone and Webster. Westinghouse purchased Stone and Webster from CB&I in 2015.

On 24 January 2017, Standard & Poor's Global Ratings cut Toshiba's credit rating deeper into junk status, downgrading it to CCC+ ("substantial risks"), down one notch from the previous B- ("highly speculative"). Both ratings are considered non-investment or "junk" level. Japan's securities watchdog recommended that Toshiba be fined a record 7.37 billion yen US\$60.5 million for overstating profits, while it is already being sued by shareholders over damages brought about by stock losses.

In future, Toshiba's nuclear division is planning to concentrate on designing nuclear reactors due to the difficulties in forecasting construction costs. The decision followed an emergency board meeting in Tokyo to discuss the survival of one of Japan's major companies, with the President of Toshiba explaining that the decision "will eliminate the risk from the construction business". In June 2016, the incoming President of Toshiba had recommitted to the company's aim to win orders for 45 or more nuclear reactors overseas by 2030, however, it now appears to abandon that goal.

U.S. Nuclear Plants At Centre of Crisis

The Vogtle and Summer plants are at least three years behind schedule and billions of dollars over budget. The AP1000 reactor projects are managed by CB&I Stone and Webster, a subsidiary of Westinghouse Electric Company LLC, which was purchased by Toshiba in 2006. In mid-February 2017, Toshiba is expected to declare a deficit of about 700 billion yen (\$6.1 billion).

As of September 2016, the total cost of the Vogtle project was reported as US\$21 billion, more than US\$7 billion above initial estimates. With regards to VC Summer, in October 2016, after a review of the project, Westinghouse and the reactor owners South Carolina Electric and Gas Company (SC&G) agreed on a new contract with a higher projected cost of US\$14 billion, about 43 percent higher than the US\$9.8 billion price tag announced in 2008.

The latest start dates of June 2019 and June 2020 for Plant Vogtle, are unlikely to be attained, raising the prospects of further costs.

The 2017 losses greatly exceed Toshiba's projections announced in 2016. In April 2016, Toshiba announced that it expected to have US\$2.3 billion in impairment losses, in recognition that it had overpaid for Westinghouse and its falling revenues. Toshiba's fiscal year estimate for sales revenue from the nuclear firm is US\$3.1 billion in 2015/6 — US\$540 million below what it was in November 2015 and US\$180 million below what the company projected in March 2016.

Toshiba bought the Westinghouse nuclear group from British Nuclear Fuels Limited (BNFL) in 2006 for US\$4.1 billion. At the time the acquisition was hailed as bringing together the "powerful combination of Toshiba and Westinghouse's respective strengths, complementary technologies and businesses, [which] will position Toshiba as the world's leading nuclear power group, with an unrivaled business range extending to both BWR [Boiling Water Reactor] and PWR [Pressurized Water Reactor] systems."

Accounting and Valuation Dispute – Write Down of Goodwill

In October 2015, Westinghouse signed a purchase agreement to acquire CB&I Stone & Webster Inc., the nuclear construction and integrated services businesses then owned by CB&I. Westinghouse President and CEO Danny Roderick said the agreement "supports our company's strategic global growth framework, and expands our capabilities". Westinghouse and its affiliates became the sole contractor for construction of Vogtle-3 and -4, owned by Georgia Power, and V.C. Summer-2 and -3 reactors owned by SC&G.

CB&I have charged that Westinghouse reneged on promises to wipe out all the construction company's liabilities tied to the Vogtle and VC Summer projects. The dispute relates to the value of the net working capital of the CB&I Stone and Webster nuclear construction business. As explained in an analysis from Reuters, Toshiba had claimed that it was owed US\$2.15 billion by CB&I. Net working capital is a measure of the financial strength of a business, defined as its current assets minus its current liabilities. When Westinghouse bought Stone and Webster, the sale agreement included a target figure for net working capital to ensure that the financial position of the business would not change materially from the time the deal is signed to when it closes. The two companies agreed that CB&I would not be paid any money, when the deal closed, and instead would receive earnings going forward. An independent auditor was brought in to calculate the net working capital of CB&I Stone & Webster. Prior to Westinghouse's purchase of Stone and Webster, CB&I channeled US\$1 billion to Stone & Webster between June 2015 and December 2015, when the sale agreement with Westinghouse entered into force. CB&I sees the net working capital mechanism as a way to be compensated for continuing to support the unit after the deal signed. But Westinghouse changed the calculations on Stone and Webster's net working capital and argued that "CB&I's methodology did not adhere sufficiently to Generally Accepted Accounting Principles (GAAP)", while "CB&I maintained that it has stuck to the accounting methodology it used before and Westinghouse previously accepted".

The nuclear power plant construction unit's liabilities affect not just the net working capital calculations, but also the valuation of the unit. Toshiba initially estimated the 'goodwill' resulting from the purchase of CB&I Stone and Webster at around US\$87 million, which has now morphed into several billions of dollars. Clearly, as an intangible asset, the goodwill estimated by Toshiba was massively overvalued failing to take into account the rising cost of materials and goodwill to complete Vogtle and VC Summer, leading to the company's assets worth being less than expected. In April 2016, Toshiba reported the write down of goodwill as likely to be US\$2.3 billion, now revised downward further by several billion.

On 5 December 2016, the Delaware Chancery Court found in favor of Westinghouse and dismissed the filing of CB&I, and found that the parties' purchase agreement required an independent auditor to resolve the dispute. CB&I filed an appeal on 7 December 2016.

"We focused on the nuclear business among all of our energy businesses, but this will change... This will entail a review of our overseas (nuclear) business."

Satoshi Tsunakawa

President, Toshiba Corp.

27 January 2017

Implications for Toshiba-Westinghouse's Worldwide Nuclear Ambitions

The Toshiba crisis raises significant implications for planned projects worldwide, as well as undermining a central tenet of Japanese government economic policy of promoting nuclear reactor exports. Over the decades, Toshiba, alone or in joint ventures, has built 20 reactors in Japan, none of which are operating (nine are closed and 11 in long-term outage) and Westinghouse has built 91 reactors globally, of which 67 are still operating, 12 are closed and four are in long-term outage. (See the Global Nuclear Power Database for details and locations).

Currently, in addition to the four AP1000 reactors under construction in the U.S., four are under construction at Sanmen and Haiyang in China. **As in the U.S., the Chinese projects have suffered construction delays and cost overruns, design changes and equipment failure.** The Sanmen cost overruns were the probable cause of the resignations at Toshiba in 2015. They are however, currently scheduled for grid connection of Sanmen-1 in 2017, three years behind schedule, with Haiyang-1 scheduled shortly thereafter.

Toshiba-Westinghouse has been actively seeking contracts for the construction of AP1000's worldwide, including in the U.K. and India.

The U.K. NuGen consortium, with a 60 percent share owned by Toshiba, and the balance with French company Engie, has plans to build three AP1000 reactors near the UK Sellafield site, with Generic Design Assessment for the AP1000 not yet concluded. As with nuclear projects worldwide, financing for the UK project is critical and so far not secured. The financial crisis at Toshiba is impacting the ability of the company to secure the financing it requires for the project. It has already made requests to Japanese insurers as well as some banks including Norinchukin Bank and has hired HSBC as advisor. In 2015, Toshiba had estimated a total cost of 1.5 trillion yen US\$12.4 billion for the NuGen project. But industry analysts now believe the cost could be roughly double that due to higher-than-expected labor costs and revised safety standards. The current schedule of 2018 for finalizing financial plans for the 3.4 GW project appear unattainable at this stage.

Toshiba-Westinghouse has long touted the Indian market for exports, with ambitions to build twelve AP1000 in Andhra Pradesh and Gujarat. Despite Toshiba-Westinghouse and the Nuclear Power Company of India Limited (NPCIL) having signed a works agreement in 2013 no construction has begun at either sites and financing has still to be secured. Both, Toshiba-Westinghouse and GE-Hitachi have been reluctant to rush into the Indian market because there is a possibility that they could be facing compensation of billions of dollars in a case of an accident.

However, trade journal *Nucleonics Week* reported in January 2017 that Toshiba-Westinghouse were ready to sign a commercial contract to supply reactors to India without a final settlement of the nuclear liability issue. Analysis carried out by the Institute for Energy Economics and Financial Analysis (IEEFA) concluded that the Mithivirdi project, at Bhavnagar, in Gujarat in northwest India was not financially viable. Toshiba-Westinghouse has been desperately trying to secure financing for the reactor project, with the U.S. Exim Bank being a particular target. Toshiba-Westinghouse was seeking US\$8-9 billion from Exim

towards the cost of the project. However, U.S. Exim is not able to issue loan guarantees over US\$10 million presently, due to a political dispute that has meant that only two of the five board members are currently in place. There is no clarity as to when or if this obstacle will be resolved, given that leading House Republicans are seeking to terminate the bank's very existence, with critical comments on the Bank made by President Trump prior to the election. Financing from the Japan Bank for International Cooperation—the international arm of the Japan Finance Corporation, and under the administration of the Ministry of Finance—while theoretically possible, will be further complicated by the latest crisis at Toshiba. However, there is no point in continuing the difficult search for financing if the decision to exit nuclear construction altogether is officially confirmed. Toshiba-Westinghouse management is expected to provide the answer by mid-February 2017.

TEPCO looking for new business

February 20, 2017

Tepco, Chubu Electric may integrate thermal power biz in 2018

<http://www.japantimes.co.jp/news/2017/02/20/business/corporate-business/tepc-co-chubu-electric-may-integrate-thermal-power-biz-2018/#.WKrzPvKDmos>

Staff Report

Tokyo Electric Power Company Holdings Inc. and Chubu Electric Power Co. are considering integrating their thermal power generation business in fiscal 2018, a report said Monday.

Tepco, an embattled utility facing the gigantic cost of dealing with the nuclear crisis at the Fukushima No. 1 plant, and Chubu Electric may announce the deal this spring, the Asahi Shimbun said in its online report. In 2015, the two utilities jointly set up JERA, a firm to oversee their thermal power business. The firm is equally funded by Tepco and Chubu Electric. The latest deal is aimed at giving more role to the joint firm, the report said.

If the deal clears anti-monopoly regulations, the joint firm would enjoy about 40 percent of market share in Japan's thermal power generation, Asahi said.

Up to now, Chubu Electric had been skeptical about bolstering the business of JERA because it believed Tepco could be forced to use proceeds from the thermal power business by the joint firm to cover the cost of the Fukushima cleanup. But Tepco recently compiled a draft business revamp plan that has convinced Chubu Electric that such proceeds won't be diverted, Asahi said.

Iitate's evacuees pressured to return (Greenpeace)



Government employees monitor radiation at a day-care center in Iitate in 2011

Fukushima nuclear disaster evacuees 'pressured' to return to contaminated homes, says Greenpeace

<http://www.dw.com/en/fukushima-nuclear-disaster-evacuees-pressured-to-return-to-contaminated-homes-says-greenpeace/a-37639353>

Even though radiation levels in a village near the site of the Fukushima nuclear disaster still exceed international guidelines, its evacuated residents are being coerced to return, according to a Greenpeace report.

Residents from the Japanese ghost village of Iitate will be allowed to return to their former homes at the end of March - the first time since they were forced to flee the Fukushima nuclear disaster in 2011. That's the date the Japanese government has set to lift evacuation orders.

But according to environmental organization Greenpeace, it's uncertain whether many will want to. Greenpeace says tests it has carried out on homes in Iitate show that despite decontamination, radiation levels are still dangerously high - but that's not stopping the Japanese government from pressuring evacuees from returning, under threat of losing financial support.

Those who refuse to go back to their former homes, and are dependent on the Japanese government's financial help, are faced with a dilemma. After a year from when an area is declared safe again to live in, evacuated residents will see their compensation payments terminated by the government.

Radiation 'comparable with Chernobyl'

The nuclear disaster led to more than 160,000 people being evacuated and displaced from their homes. Of these, many tens of thousands are still living in temporary accommodation six years on.

The village of Iitate, lying northwest of the destroyed reactors at Fukushima Daiichi power plant and from which 6,000 citizens had to be evacuated, was one of the most heavily contaminated following the nuclear disaster.

Government employees monitor radiation at a day-care center in Iitate in 2011

Around 75 per cent of Iitate is mountainous forest, an integral part of residents' lives before the nuclear accident.

But according to Greenpeace's report, published on Tuesday, radiation levels in these woods are "comparable to the current levels within the Chernobyl 30km exclusion zone - an area that more than 30 years after the accident remains formally closed to habitation."

Put another way, Greenpeace said that in 2017, there clearly remains a radiological emergency within Iitate - defining emergency thus: "If these radiation levels were measured in a nuclear facility, not Iitate, prompt action would be required by the authorities to mitigate serious adverse consequences for human health and safety, property or the environment."

The environmental organization says decontamination efforts have primarily focused on the areas immediately around people's homes, in agricultural fields and in 20-meter strips along public roads. But these efforts ended up generating millions of tons of nuclear waste - these now lie at thousands of locations across the prefecture, but they haven't reduced the level of radiation in Iitate "to levels that are safe," says Greenpeace.

'Normalizing' nuclear disaster?

The organization has accused the Japanese government of trying "to normalize a nuclear disaster, creating the myth that just years after the widespread radioactive contamination caused by the nuclear accident of 11 March 2011, people's lives and communities can be restored and reclaimed.

"By doing so, it hopes, over time, to overcome public resistance to nuclear power."

Greenpeace also lambasted the government for leaving unanswered what it calls a critical question for those trying to decide whether to return or not: what radiation dose will they be subjected to, not just in one year but over decades or a lifetime?

Greenpeace says Japan's government wants to restore public confidence in nuclear power at the cost of harming residents

"Until now the Japanese government has exclusively focused on annual radiation exposure and not the potential radiation dose rates returning citizens could potentially face over their entire lifetime," says Greenpeace.

Greenpeace, which has been monitoring Iitate since 2011, carried out its latest survey in November 2016. It found that the average radiation dose range for Iitate beginning from March 2017 over a 70-year lifetime was between 39 millisieverts (mSv) and 183mSv - and that's not including natural radiation exposure expected over a lifetime, or the exposure received in the days, weeks and months following the March 2011 nuclear disaster.

That exceeds yearly guidelines set by the International Commission on Radiological Protection (ICRP) when added up over a 70-year period - it puts the maximum recommended radiation exposure at 1mSv annually.

Greenpeace says: "The highly complex radiological emergency situation in Iitate, and with a high degree of uncertainty and unknown risks, means that there is no return to normal in Iitate, Fukushima prefecture." It has called on the Japanese government to cease its return policy, and to provide full financial support to evacuees, and "allow citizens to decide whether to return or relocate free from duress and financial coercion."

According to Greenpeace, "for the more than 6,000 citizens of Iitate, this is a time of uncertainty and anxiety."

Heinz Smital, nuclear physicist and radiation expert at Greenpeace Germany, and part of the team taking measurements at Iitate, told DW the residents were faced with a very difficult situation.

"If you decide to live elsewhere [and not return to Iitate], then you don't have money, you're sometimes not welcomed in another area so you are forced to leave, because people say, 'you're not going back but you could go back,'" he said. "But for people who go back, they have contaminated land, so how can they use the fields for agriculture?"

He urged the Japanese government to more involve those affected in the decision-making process and not try to give an impression that things are "going back to normal."

"It's a violation of human rights to force people into such a situation because they haven't done anything wrong, it's the operator of the power plant responsible for the damage it caused," said Smital.

"It's very clear that there's very serious damage to the property and the lifestyle of the people but the government doesn't care about this."

DW recommends

Tokyo under fire for plans to speed return of Fukushima evacuees

1. Japan aims to lift evacuation orders for many people forced from their homes by the Fukushima disaster, environmentalists say many areas still show highly-elevated levels of contamination and are unfit for habitation. (21.07.2015)

Radiation at Fukushima plant hits 5-year high

2. Japanese nuclear plant has recorded the highest radiation level since the 2011 earthquake and tsunami. The findings are likely to delay attempts to dismantle the plant and will likely increase decommissioning costs. (03.02.2017)

Living with radiation a year after Fukushima

3. food remains a worry for many Japanese a year after the March 11 9.0-magnitude earthquake and ensuing tsunami with up to 40-meter (130-ft.) waves which triggered the worst atomic disaster since Chernobyl. (10.03.2012)

Nuke integration project delayed

February 23, 2017

Hitachi, Mitsubishi Heavy, Toshiba to delay nuclear integration project

<http://mainichi.jp/english/articles/20170223/p2a/00m/0na/011000c>

Hitachi Ltd., Mitsubishi Heavy Industries Ltd. and Toshiba Corp. have decided to delay the integration of their nuclear fuel businesses that was planned for spring due to reasons such as manufacturing hub-related problems and prolongation of a Japan Fair Trade Commission review.

- **【Related】** Industry ministry's push behind move to integrate nuclear fuel businesses

Specifically, the three Hitachi, Mitsubishi and Toshiba affiliates that are involved in these integration talks are as follows: Global Nuclear Fuel-Japan Co., Mitsubishi Nuclear Fuel Co., and Nuclear Fuel Industries Ltd. -- of which U.S. company Westinghouse Electric Company LLC is a major shareholder.

Since the nuclear disaster in Fukushima in 2011, Hitachi, Mitsubishi and Toshiba have all struggled with their nuclear businesses, and **each company is aiming to reduce costs in this area by integrating with one another in the hope that this will lead to increased efficiency**. Also, it is planned that the three companies will invest equally into a holding company, which will oversee the fuel companies under their control. According to a source close to the integration project, the three companies are in agreement that they will need to "scrap and build" some of the manufacturing bases that are currently held by the companies' fuel divisions. However, this will not be an easy process because the decision as to which base should be scrapped will inevitably result in job cutbacks.

In addition, earlier this month, Toshiba announced huge losses in excess of 700 billion yen in its nuclear unit in the U.S. Therefore, as the company tries to deal with its massive financial loss, it will inevitably face difficulty as it attempts to proceed with this integration project.

Furthermore, there have also been problems regarding the companies' failure to request a review by the Japan Fair Trade Commission that will be necessary in this case under Japan's Anti-Monopoly Act. There are other issues at hand, such as a possible requirement to support the export of nuclear fuel from overseas to Japan, and it is expected that the review will take several months.

The three companies have all been involved in the manufacturing of nuclear reactors, but the nuclear business environment has worsened, and Toshiba is currently in the midst of a financial crisis. A delay in this integration project could further increase the pressure on these companies' businesses.

In response to an interview with the Mainichi Shimbun, a PR representative from Mitsubishi Heavy Industries stated, "We are looking into various possibilities, including discussions with other companies. However, at this point in time, we do not have a fixed schedule regarding the integration."

See also : <http://www.japantimes.co.jp/news/2017/02/23/business/hitachi-toshiba-mitsubishi-may-postpone-nuclear-fuel-business-integration-sources/>

No decommissioning work for foreigners

February 24, 2017

TEPCO won't let foreign trainees do nuclear decommissioning work

<https://mainichi.jp/english/articles/20170224/p2a/00m/0na/003000c>

Tokyo Electric Power Co. (TEPCO) announced on Feb. 23 that it will check the resident status of any foreign workers involved in decommissioning work at its Fukushima No. 1 Nuclear Power Plant and prevent anyone who is found to be a "Technical Intern Training Program" trainee from doing such work. According to TEPCO, approximately 40 foreigners are currently working at the troubled nuclear plant in Fukushima Prefecture. To date, the company has checked all the passports of its foreign workers, but going forward, TEPCO plans to verify their IDs by checking the residence cards of such workers as well. With regard to foreign trainees under the government-backed program whose aim is to transfer Japan's technology back to developing countries, a TEPCO executive said, "We have introduced restrictions in order to create an appropriate working environment," following consultation with the Ministry of Economy, Trade and Industry.

Speaking on the matter, a former subcontractor explained that there were no cases of foreign trainees working at the Fukushima nuclear plant in the past.

TEPCO's new policy will become effective from April 1.

A potential global catastrophe

February 20, 2017

Fukushima: a Lurking Global Catastrophe?

<http://www.counterpunch.org/2017/02/20/fukushima-a-lurking-global-catastrophe/>

by Robert Hunziker

Year over year, ever since 2011, the Fukushima Daiichi nuclear meltdown grows worse and worse, an ugly testimonial to the inherent danger of generating electricity via nuclear fission, which produces isotopes, some of the most deadly poisonous elements on the face of the planet.

Fukushima Daiichi has been, and remains, one of the world's largest experiments, i.e., what to do when all hell breaks loose aka The China Syndrome. "Scientists still don't have all the information they need for a cleanup that the government estimates will take four decades and cost ¥8 trillion. It is not yet known if the fuel melted into or through the containment vessel's concrete floor, and determining the fuel's radioactivity and location is crucial to inventing the technology to remove the melted fuel," (Emi Urabe, Fukushima Fuel-Removal Quest Leaves Trail of Dead Robots, The Japan Times, Feb. 17, 2017).

As it happens, "inventing technology" is experimental stage stuff. Still, there are several knowledgeable sources that believe the corium, or melted core, will never be recovered. Then what?

According to a recent article, "Potential Global Catastrophe of the Reactor No. 2 at Fukushima Daiichi," d/d Feb. 11, 2017 by Dr. Shuzo Takemoto, professor, Department of Geophysics, Graduate School of Science, Kyoto University: The Fukushima nuclear facility is a global threat on level of a major catastrophe.

Meanwhile, the Abe administration dresses up Fukushima Prefecture for the Tokyo 2020 Olympics, necessitating a big fat question: Who in their right mind would hold Olympics in the neighborhood of three out-of-control nuclear meltdowns that could get worse, worse, and still worse? After all, that's the pattern over the past 5 years; it gets worse and worse. Dismally, nobody can possibly know how much

worse by 2020. Not knowing is the main concern about holding Olympics in the backyard of a nuclear disaster zone, especially as nobody knows what's happening. Nevertheless and resolutely, according to PM Abe and the IOC, the games go on.

Along the way, it's taken Tokyo Electric Power Company (TEPCO) nearly six years to finally get an official reading of radiation levels of the meltdown but in only one unit. Analysis of Unit #2 shows radiation levels off-the-charts at 530 Sieverts, or enough to kill within minutes, illustrative of why it is likely impossible to decommission units 1, 2, and 3. No human can withstand that exposure and given enough time, frizzled robots are as dead as a doornail.

"A short-term, whole-body dose of over 10 sieverts would cause immediate illness and subsequent death within a few weeks, according to the World Nuclear Association" (Emi Urabe, Fukushima Fuel-Removal Quest Leaves Trail of Dead Robots, The Japan Times, Feb. 17, 2017).

Although Fukushima's similar to Chernobyl Exclusion Zone in some respects, where 1,000 square miles has been permanently sealed off, Fukushima's different, as the Abe administration is already repopulating portions of Fukushima. If they don't repopulate, how can the Olympics be held with food served from Fukushima and including events like baseball held in Fukushima Prefecture?

Without question, an old saw – what goes around comes around – rings true when it comes to radiation, and it should admonish (but it doesn't phase 'em) strident nuclear proponents, claiming Fukushima is an example of how safe nuclear power is "because there are so few, if any, deaths" (not true). As Chernobyl clearly demonstrates: Over time, radiation cumulates in bodily organs. For a real life example of how radiation devastates human bodies, consider this fact: 453,391 children with bodies ravaged, none born at the time of the Chernobyl meltdown in 1986, today receive special healthcare because of Chernobyl radiation-related medical problems like cancer, digestive, respiratory, musculoskeletal, eye disease, blood disease, congenital malformation, and genetic abnormalities. Their parents were children in the Chernobyl zone in 1986 (Source: Chernobyl's Legacy: Kids With Bodies Ravaged by Disaster, USA Today, April 17, 2016).

Making matters worse yet, Fukushima Daiichi sets smack dab in the middle of earthquake country, which defines the boundaries of Japan. In that regard, according to Dr. Shuzo Takemoto, professor, Department of Geophysics, Graduate School of Science, Kyoto University: "The problem of Unit 2... If it should encounter a big earth tremor, it will be destroyed and scatter the remaining nuclear fuel and its debris, making the Tokyo metropolitan area uninhabitable. The Tokyo Olympics in 2020 will then be utterly out of the question," (Shuzo Takemoto, Potential Global Catastrophe of the Reactor No. 2 at Fukushima Daiichi, February 11, 2017).

Accordingly, the greater Tokyo metropolitan area remains threatened for as long as Fukushima Daiichi is out of control, which could be for generations, not years. Not only that, Gee-Whiz, what if the big one hits during the Olympics? After all, earthquakes come unannounced. Regrettably, Japan has had 564 earthquakes the past 365 days. It's an earthquake-ridden country. Japan sits at the boundary of 4 tectonic plates shot through with faults in zigzag patterns, very lively and of even more concern, the Nankai Trough, the candidate for the big one, sits nearly directly below Tokyo. On a geological time scale, it may be due for action anytime within the next couple of decades. Fukushima Prefecture's not that far away. Furthermore, the Fukushima Daiichi nuclear complex is tenuous, at best: "All four buildings were structurally damaged by the original earthquake some five years ago and by the subsequent hydrogen explosions so should there be an earthquake greater than seven on the Richter scale, it is very possible that one or more of these structures could collapse, leading to a massive release of radiation as the building falls on the molten core beneath." (Helen Caldicott: The Fukushima Nuclear Meltdown Continues Unabated, Independent Australia, February 13, 2017).

Complicating matters further, the nuclear site is located at the base of a mountain range. Almost daily, water flows from the mountain range beneath the nuclear plant, liquefying the ground, a sure-fire setup for cascading buildings when the next big one hits. For over five years now, radioactive water flowing out of the power plant into the Pacific carries isotopes like cesium 134 and cesium 137, strontium 90, tritium, plutonium americium and up to 100 more isotopes, none of which are healthy for marine or human life, quite the opposite in fact as those isotopes slowly cumulate, and similar to the Daleks of Doctor Who fame (BBC science fiction series, 1963-present) “Exterminate! Exterminate! Exterminate!”

Isotopes bio-concentrate up the food chain from algae to crustaceans to small fish to big fish to bigger humans. Resultant cancer cells incubate anytime from two years to old age, leading to death. That’s what cancer does; it kills.

Still, the fact remains nobody really knows for sure how directly Fukushima Daiichi radiation affects marine life, but how could it be anything other than bad? After all, it’s a recognized fact that radiation cumulates over time; it’s tasteless, colorless, and odorless as it cumulates in the body, whether in fish or further up the food chain in humans. It travels!

An example is Cesium 137 one of the most poisonous elements on the planet. One gram of Cesium 137 the size of a dime will poison one square mile of land for hundreds of years. That’s what’s at stake at the world’s most rickety nuclear plant, and nobody can do anything about it. In fact, nobody knows what to do. They really don’t.

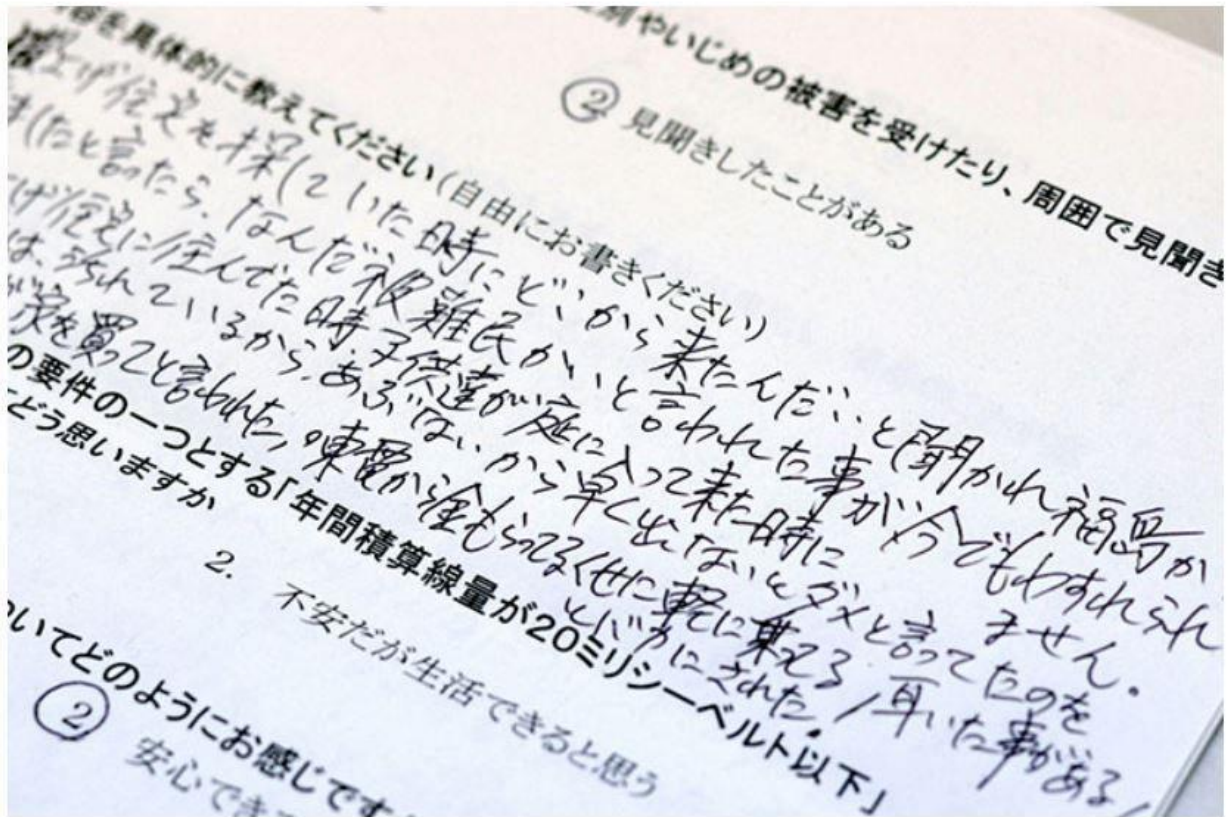
When faced with the prospect of not knowing what to do, why not bring on the Olympics? That’s pretty good cover for a messy situation, making it appear to hundreds of thousands of attendees, as well as the world community “all is well.” But, is it? Honestly....

The Fukushima nuclear meltdown presents a special problem for the world community. Who knows what to believe after PM Abe lied to the IOC to get the Olympics; see the following headline from Reuters News: “Abe’s Fukushima ‘Under Control’ Pledge to Secure Olympics Was a Lie: Former PM,” Reuters, Sept. 7, 2016.

“Abe gave the assurances about safety at the Fukushima plant in his September 2013 speech to the International Olympic Committee to allay concerns about awarding the Games to Tokyo. The comment met with considerable criticism at the time... Mr. Abe’s ‘under control remark, that was a lie,’ Koizumi (former PM) now 74 and his unruly mane of hair turned white, told a news conference where he repeated his opposition to nuclear power,” Ibid.

As such, a very big conundrum precedes the 2020 games: How can the world community, as well as Olympians, believe anything the Abe administration says about the safety and integrity of Fukushima? Still, the world embraces nuclear power more so than ever before as it continues to expand and grow. Sixty reactors are currently under construction in fifteen countries. In all, 160 power reactors are in the planning stage and 300 more have been proposed. Pro-Nuke-Heads claim Fukushima proves how safe nuclear power is because there are so few, if any, deaths, as to be inconsequential. That’s a boldfaced lie. Here’s one of several independent testimonials on deaths because of Fukushima Daiichi radiation exposure (many, many, many more testimonials are highlighted in prior articles, including USS Ronald Reagan sailors on humanitarian rescue missions at the time): “It’s a real shame that the authorities hide the truth from the whole world, from the UN. We need to admit that actually many people are dying. We are not allowed to say that, but TEPCO employees also are dying. But they keep mum about it,” Katsutaka Idogawa, former mayor of Futaba (Fukushima Prefecture), Fukushima Disaster: Tokyo Hides Truth as Children Die, Become Ill from Radiation – Ex-Mayor, RT News, April 21, 2014.

Fukushima evacuees bullied



A man living outside Fukushima Prefecture writes, "When I said that I came from Fukushima, I was told, 'You are an evacuee, aren't you?' I cannot forget that." (Ryota Goto)

February 26, 2017

SIX YEARS AFTER: 60 percent say Fukushima evacuees bullied

By KENJI IZAWA/ Staff Writer

<http://www.asahi.com/ajw/articles/AJ201702260027.html>

More than 60 percent of current or former evacuees from the Fukushima nuclear crisis said they were victims of bullying or discrimination in areas they evacuated to or witnessed or heard of such incidents, according to a new survey.

The survey, released Feb. 26, was conducted jointly by The Asahi Shimbun and Akira Imai, professor of local governments' policies at Fukushima University, in January and February.

"It is probably the first time that the actual conditions of 'bullying evacuees' became clear in large quantities and concretely," Imai said. "The recognition that evacuees are victims of the nuclear accident is not shared in society. That is leading to the bullying."

The series of surveys started in June 2011, three months after an accident occurred at the Fukushima No. 1 nuclear power plant due to the Great East Japan Earthquake and tsunami.

In the latest survey, the sixth, The Asahi Shimbun and Imai sent a questionnaire in late January to 348 people who had replied to the series of surveys.

Of these, 184 people of 18 prefectures, including Fukushima Prefecture, gave valid responses. Of the 184, 147 were still evacuees.

The latest survey asked for the first time whether they were bullied or discriminated due to the fact that they evacuated because of the nuclear accident. Thirty-three of the 184, or 18 percent, said that they or their family members became victims of bullying or discrimination.

In addition, 81 of the 184, or 44 percent, replied that they saw or heard of those actions around them.

In a section in which respondents can freely describe their experiences or opinions, a 35-year-old woman wrote, "I was told, 'Why do you work despite the fact that you have money. I felt sad, wondering whether I have no right to work.'"

A 59-year-old man wrote, "When I bought in bulk, I was told, 'Oh! An evacuee.'"

Meanwhile, 60 of the 184 respondents, or 33 percent, responded that they have neither been victims of bullying or discrimination nor have they seen or heard of any acts.

A 48-year-old woman wrote, "Superiors or colleagues in my workplace in the area where I have evacuated have treated me normally. I have been able to encounter good people."

The survey also asked the 147 respondents, who are still evacuees, whether they think they are unwilling to tell people around them the fact that they are evacuating. Sixty-one, or 41 percent, replied that they think so.

In the free description section, a 49-year-old woman wrote, "I have the anxiety that talking (with other people) will lead to discussing compensation money." A 31-year-old woman wrote, "I have a concern that my children could be bullied."

Meanwhile, 50 of the 147 respondents, or 34 percent, replied that they don't have that anxiety about telling people. In addition, 26 of the 147 people, or 18 percent, answered that they don't know whether they think so or not.

A 56-year-old man wrote, "I dare not tell people who do not know that I am evacuating. I cannot move my life forward if I continue to say that I am an evacuee."

Currently, about 80,000 people are living in and outside Fukushima Prefecture as evacuees.

Educational?

February 28, 2017

Fukushima students to go on tours of wrecked nuclear plant

<http://www.asahi.com/ajw/articles/AJ201702280005.html>

By HIROKI KOIZUMI/ Staff Writer

FUKUSHIMA--A tour of the infamous crippled Fukushima No. 1 nuclear power plant is in store for some college students here over the coming years.

Fukushima University officials say it is crucial that future nuclear power plant decommissioning workers such as engineers are given the opportunity to examine the current state of the nuclear plant and gain experience from doing so.

The extracurricular tour of the Fukushima No. 1 plant, which was wrecked by the tsunami and the Great East Japan Earthquake on March 11, 2011, will start within the next fiscal year starting in April. University officials said Feb. 1 that tour participants will be recruited from the 20 or so students who are working on radiation, radioactive cleanup and other research subjects at the Faculty of Symbiotic Systems Science.

Eligibility for the tours of the plant operated by Tokyo Electric Power Co. will be expanded in and after fiscal 2018, the officials added.

The tours will be organized as part of a program that won a bidding process initiated by the science ministry for research and personnel development projects that help accelerate nuclear decommissioning processes.

The program has been designated to receive subsidies over a five-year period from fiscal 2015 through fiscal 2019.

TEPCO officials said the company has allowed university students to tour the Fukushima No. 1 nuclear plant in the past, most of whom were from laboratories working on nuclear decommissioning processes and radiation.

A total of about 40 executive staff members, clerical workers and other officials of Fukushima University, including President Katsumi Nakai, have toured the nuclear plant twice this fiscal year, in December and January, respectively.

“With rubble and other objects cleaned up, it appeared to me that the place was tidy, but some areas were still beyond anybody’s reach and control, so I thought the situation remained difficult,” Nakai said of his impression of the Fukushima No. 1 plant during a news conference on Feb. 1.

He said he came to believe, while exchanging views with TEPCO officials, that nuclear decommissioning processes require not only personnel with scientific backgrounds but also risk communication personnel who have backgrounds in psychology and other subjects.

“The end of the five-year period (of the science ministry subsidies) will not mean the end of our efforts,” Nakai said. “We have to work on the long-term development of nuclear decommissioning personnel. We will think about creating opportunities, in the future, for taking students of human and social sciences on our tours.”

Wanted: Surprise inspections and more (and better-trained) inspectors

February 27, 2017

Editorial: Time to transform Japan's nuclear plant inspection system

<http://mainichi.jp/english/articles/20170227/p2a/00m/0na/010000c>

The government has submitted to the Diet a bill to revise the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors. The bill includes the **introduction of surprise inspections at**

nuclear plants by inspectors from the Secretariat of the Nuclear Regulation Authority, which would allow them to enter any part of a nuclear plant at any time, as well as a system where the state gives an overall evaluation to each plant based on the results of the inspections and other factors and release the data. These new systems are expected to come into operation in fiscal 2020.

- **【Related】** 2 more nuclear reactors effectively clear regulator's safety review

With surprise inspections, it will be difficult for power companies to hide problems at their nuclear plants. And since evaluation results will be published and comparison among nuclear plants will be possible, the principle of competition comes into play, which is expected to encourage utilities to voluntarily develop safety measures at their own plants.

In the meantime, the Nuclear Regulation Authority (NRA) should work on **boosting the number of nuclear plant inspectors and training such officials so that the revisions will lead to the improvement of nuclear plant safety.**

The NRA was established in the wake of the March 2011 nuclear disaster at the Fukushima No.1 Nuclear Power Plant and new safety standards subsequently came into effect. Restarts of idled nuclear reactors based on the new standards are underway. At the same time, reviews on nuclear plant inspection systems had been put on the back burner.

The pillars of nuclear plant inspections conducted by the government and power companies are regular checkups, which are carried out about once every 13 months, and security examinations done four times a year. With regular inspections, facilities with higher levels of importance are screened, while security examinations mainly judge whether a nuclear plant is operated safely.

The dates and contents of these checks are set prior to the actual inspections, however, and the system lacks flexibility, preventing the government from acting on a case-by-case basis to check problems at each plant.

NRA Chairman Shunichi Tanaka has said that there is corporate culture within power companies where they think their nuclear plants are fine as long as they pass safety checks by government regulators. The International Atomic Energy Agency has also pointed out that this way of thinking is problematic and the agency recommended Japanese authorities improve nuclear plant inspection systems in the pre-disaster year of 2007 and again in January 2016.

Under the proposed bill, **the division of roles shared by the government and power companies will be clarified. Utilities would be solely responsible for making sure that facilities at their nuclear plants meet safety standards, while the government would take the role of a watchdog,** monitoring power companies' safety measures and how inspections are being carried out to give an overall evaluation for each plant. The results of surprise inspections will be included in a nuclear plant's overall grade, which will be reflected in the next inspection.

The new inspection system was inspired by those employed in the United States and other countries with nuclear power. While Japan will catch up with those countries in terms of the system after the law is revised, that alone is not enough.

In the United States, where around 100 nuclear reactors are in operation, there are some 1,000 inspectors at the U.S. Nuclear Regulatory Commission, and they undergo a two-year training program. In Japan, on the other hand, there are only around 100 inspectors for more than 40 reactors, and they receive a mere two weeks of training.

Unless the quality and quantity of the nuclear plant inspectors are secured, the effectiveness of the new system would become questionable.

Furthermore, **the overall grades for each nuclear plant should be released in a way to make it easier for the public to understand.** The government should also consider ways to make good use of the system such as changing the premiums of liability insurance policies for potential nuclear accidents depending on the nuclear plants' safety grades.

Extention of state control over TEPCO

March 2, 2017

Govt. to keep control over TEPCO for longer period

https://www3.nhk.or.jp/nhkworld/en/news/20170302_09/

The Japanese government has decided to maintain control over the operator of the damaged Fukushima Daiichi nuclear power plant for an extended period.

Officials made the decision **due to rising costs from the recovery of the 2011 nuclear accident.**

The government acquired a 50.1 percent stake in Tokyo Electric Power Company through a state-backed bailout fund after the accident. This put the utility under effective state control.

Under the current plan, the government was to gradually reduce its control after April by selling TEPCO stocks in phases, while monitoring the company's management.

But the government estimates that it will cost a total of about 188 billion dollars to clean up the soil, pay compensation, and decommission reactors. That's about twice as much as an earlier estimate.

The extension of state control over TEPCO means that the government has to give up the current plan to cover the clean-up cost of about 35 billion dollars by selling the utility's shares.

The government is now considering listing a joint venture set up by TEPCO, and Chubu Electric Power Company, and selling its stocks. It is also looking into selling some shares of a TEPCO group company that operates a power transmission business.

The government intends to include these financial alternatives in the utility's business plan which will be renewed for the first time in 3 years in spring.

More bribery involved in Fukushima decontamination

March 2, 2017

Bribery scandal over Fukushima decontamination

https://www3.nhk.or.jp/nhkworld/en/news/20170302_30/

Police in Japan have arrested an environment ministry official for alleged bribery over decontamination work following the Fukushima Daiichi nuclear disaster.

Fifty-six-year-old Yuji Suzuki, who works at a ministry sub-branch in the prefecture, is suspected of helping a construction company land such work in exchange for wining and dining.

The work is aimed at removing radioactive material from houses, soil and woods near the crippled plant.

Fukushima and Tokyo police found that Suzuki was provided entertainment at hostess bars and a free trip worth about 1,750 US dollars from the construction firm in Toyama Prefecture.

Police also arrested a former president of the firm, Mikio Kosugi over the suspected bribery. The 2 have reportedly admitted to the allegations.

Suzuki is among experts hired on a temporary basis by the ministry to deal with reconstruction work including cleaning up widespread fallout from the accident. Police say he was in charge of overseeing decontamination.

Environment Minister Koichi Yamamoto on Thursday expressed regret, saying the scandal could undermine Fukushima people's trust in the cleanup effort.

He said his ministry will try to win back public trust by tightening discipline and carrying out work properly.

High time for TEPCO to face its problems

March 4, 2017

EDITORIAL: TEPCO blunders raise doubts on ability as nuke plant operator

<http://www.asahi.com/ajw/articles/AJ201703040025.html>

Recent revelations concerning Tokyo Electric Power Co. raised fundamental doubts about whether the utility has done sufficient soul-searching over the accident at its Fukushima No. 1 nuclear power plant in 2011.

The revelations concern the Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture, where the company is seeking to restart the No. 6 and No. 7 reactors as soon as possible. In one instance, a key facility has been found to be lacking an adequate level of earthquake resistance.

TEPCO's latest blunders emerged during the final stages of the Nuclear Regulation Authority's screening of the two reactors, based on stricter safety standards introduced after the Fukushima nuclear disaster. The NRA summoned TEPCO President Naomi Hirose. It should come as no surprise that the NRA's chairman, Shunichi Tanaka, instructed Hirose to re-submit documents in the application for the restarts after ensuring their accuracy as a matter of his responsibility.

The new standards are nothing but the NRA's minimum requirements for safe reactor operations.

Utilities have the primary responsibility for keeping track of the latest scientific knowledge and improving the safety of nuclear power plants.

A company that fails to pay appropriate attention to developments it finds inconvenient or cannot make swift decisions when faced with such a situation is not qualified to operate a nuclear reactor.

The NRA summoned Hirose over the earthquake resistance of a key building that is designed to serve as an on-site emergency response headquarters at the Kashiwazaki-Kariwa plant in the event of a severe accident.

TEPCO had said the building could withstand an earthquake with a maximum intensity of seven on the Japanese seismic scale. In the process of the NRA's screening, however, the company acknowledged that it may not be able to withstand even half of the assumed strongest seismic shaking.

TEPCO said it learned about the inadequate level of earthquake resistance in 2014. The utility said the information was not shared within the company due to poor communications among different divisions. But that explanation should not be allowed to let it off the hook.

TEPCO also failed to disclose until recently other pieces of information about the Kashiwazaki-Kariwa plant, such as the possibility that an earthquake could cause liquefaction of the ground under a seawall built to protect the plant from tsunamis.

NRA officials have criticized TEPCO for its **reluctance to disclose problems in a straightforward manner**. Local governments around the plant are similarly aghast.

Niigata Governor Ryuichi Yoneyama, who has been cautious about endorsing TEPCO's plan to restart the reactors, has stated that he does not trust the utility.

TEPCO also appears to be losing the trust of Kashiwazaki Mayor Masahiro Sakurai, who had shown some understanding to the idea of restarts. He said anxiety about TEPCO's nature has "heightened" due to the latest revelations, combined with the disclosure last year that the company tried to cover up the core meltdowns at the Fukushima plant.

"There is now the possibility that I may not give my consent" to the restarts, he said.

The 2007 Chuetsu offshore earthquake destroyed an administrative building at the Kashiwazaki-Kariwa plant.

Learning lessons from the disaster, TEPCO started constructing base-isolated buildings designed to serve as on-site emergency response headquarters at its nuclear power plants.

During the 2011 nuclear disaster, such a building at the Fukushima No. 1 plant was used as the on-site command post.

But the NRA's screenings of reactors operated by other utilities had revealed that there are cases where buildings constructed with base isolation technology do not meet the new safety standards.

Critics say TEPCO is not eager to incorporate new findings.

It has been repeatedly pointed out that TEPCO first needs to thoroughly reform its organization and corporate culture, among other aspects.

We feel compelled to state again that the company must confront its problems.

Tepco and Chubu to integrate thermal businesses

March 4, 2017

Tepco, Chubu to fully integrate thermal power businesses

<http://www.japantimes.co.jp/news/2017/03/04/business/corporate-business/tepco-chubu-fully-integrate-thermal-power-businesses/#.WLxFmfKISos>

JJI

Tokyo Electric Power Company Holdings Inc. and Chubu Electric Power Co. have decided to fully integrate their thermal power operations in two or three years, sources said Friday.

The operations, which account for half of Japan's total thermal power capacity, will be brought under Jera Co., a thermal power and fuel company jointly set up in 2015.

The two sides are expected to reach broad agreement on the integration in the near future, in line with an outline of Tepco's new business rehabilitation program, which is due out as early as March.

Tepco hopes the integration will help improve the profitability of the thermal power operations to facilitate efforts to secure funds to clean up the March 2011 meltdowns at Tepco's Fukushima No. 1 power plant and pay compensation to those affected.

The two sides are taking steps to integrate fuel and some other operations under Jera. The two aim to make an official decision this spring on whether to integrate their thermal power operations.

What future for US (new) nukes?

Background:

There has always been a lot of speculation and "hype" when it comes to the so-called nuclear renaissance. There are good reasons to be somewhat skeptical of the claim that there is a nuclear power renaissance under way in South Korea, Russia, India, and China, although there is no doubt that extravagant nuclear ambitions exist in those countries.

South Korea did have plans for stupendous expansion, to increase nuclear's share of generation to 60% by 2035. Eleven more reactors were scheduled to come on stream in the period 2012 to 2021. However, in 2013 the government submitted a reduced draft plan to parliament for nuclear output of up to 29% of generation capacity by 2035 — less than half of the original projection — following several scandals related to falsification of safety documentation. Further cutbacks could well ensue.

In India, there have been mass protests against the French-backed 9900 MW Jaitapur Nuclear Power Project in Maharashtra and the Russian-backed 2000 MW Kudankulam

Nuclear Power Plant in Tamil Nadu. The state government of West Bengal state has also refused permission to a proposed 6000 MW facility near the town of Haripur that intended to host six Russian reactors. A Public Interest Litigation (PIL) has been filed against the government's civil nuclear programme at the Supreme Court. Whether the Government of India can realize its ambitious nuclear expansion plans is unclear.

China froze new nuclear plant approvals following the 2011 Fukushima Daiichi nuclear disaster in Japan. Subsequently there was a slow down in the Chinese nuclear program. No new approvals were made during 2014. In 2015 the EPR and AP1000 builds were reported to be running over two years late, mainly due to key component delays and project management issues. Again, while China has adopted ambitious plans for new reactors, it must be born in mind that nuclear power is just 3 percent of China's supply of electricity, and even the most ambitious plans will only raise that share to 6 percent.

Gordon Edwards.

Canadian Coalition for Nuclear Responsibility (CCNR), Canada

<https://www.technologyreview.com/s/603647/meltdown-of-toshibas-nuclear-business-dooms-new-construction-in-the-us/>

Meltdown of Toshiba's Nuclear Business

Dooms New Construction in the U.S.

The collapse of the Tokyo company's nuclear development arm puts a likely end to new U.S. plants.

By James Temple, MIT Technology Review, February 17, 2017

Toshiba's dramatic exit from the business of building nuclear power plants lands another blow to a beleaguered sector, undermining new development and research on advanced reactor designs. After acquiring a majority stake in Pittsburgh-based Westinghouse Electric in 2006 for \$5.4 billion, the Tokyo technology conglomerate had high hopes for rolling out a new generation of safer, smaller, cheaper power plants, as well as a series of streamlined full-scale reactors. Four of the latter are under construction in the United States, representing the only new reactors currently being built in the country. But the company was bedeviled by cost overruns, technical problems, conflicts with contractors, and regulatory challenges that set those projects back by years. On Tuesday, Toshiba projected a \$6.3 billion write-down for its nuclear unit and said it was looking to unload its stake. "It looked like a big deal at the time, but it's turned into a mess," says Michael Golay, a professor of nuclear science and engineering at MIT. "And it's likely to have a very chilling effect." Toshiba's four massive nuclear plants now under construction in the southern United States are AP1000 pressurized-water reactors, which use a simplified design that was supposed to accelerate construction.

But the Vogtle project in Georgia and the V.C. Summer project in South Carolina are both around three years behind schedule and, together, billions of dollars over budget.

The company said those projects will continue, but many energy experts believe Toshiba's decision to cease building new reactors spells the end of any nuclear construction in the United States for the foreseeable future. Analysts doubt Toshiba will find a buyer for its Westinghouse stake, or any willing construction partners to move ahead with dozens of additional plants it had once planned.

Toshiba's struggles reflect the slow demise of nuclear power in much of the world (see "Giant Holes in the Ground"). The industry has been plagued by the rising cost of construction, the low price of natural gas, the Fukushima disaster in 2011, and the stricter regulations and souring public perceptions that followed. Germany is scaling down its nuclear program, engineering powerhouses like GE and Siemens have pulled back from the market, and France recently engineered the takeover of the nuclear giant Areva to rescue it after a series of stumbles.

Many fear the slowdown will prevent nations from building enough capacity to avoid the growing risks of climate change. The International Energy Agency estimates that nuclear energy capacity needs to double by 2050 to keep worldwide temperatures from rising more than 2 °C. Absent a carbon-capture breakthrough or a miracle battery, there's no realistic plan for cutting greenhouse-gas emissions fast enough without far more use of nuclear, says Steven Chu, the former secretary of energy and a professor of physics at Stanford.

There is, however, something of a nuclear power renaissance under way in some parts of the world, including South Korea, Russia, India, and China. Worldwide, about 60 reactors are under construction and 160 are planned—enough to add almost half again today's capacity, according to the World Nuclear Association. China alone is building dozens of conventional nuclear plants and forging ahead with advanced reactor designs in hopes of becoming the world's leader in nuclear power.

Westinghouse's 1,100-megawatt AP1000 pressurized-water reactors were specifically designed to be safer and easier to build than traditional nuclear plants, in part by utilizing standardized components. But plant construction has been plagued by engineering setbacks as well as design revisions required by the Nuclear Regulatory Commission.

Some issues probably stemmed from mismanagement. But MIT's Golay says Westinghouse's problems underscore intrinsic challenges for any company attempting to develop nuclear power in the United States, including a lack of institutional expertise after decades of little construction, rigid regulatory oversight, and shrinking appetites among investors.

Getting nuclear projects moving forward again in the United States is likely to require some combination of supportive government policies and improved construction and deployment methods, says Mike Ford, a researcher at Carnegie Mellon who focuses on nuclear energy development.

Toshiba & chapter 11 bankruptcy

March 8, 2017

Toshiba speeds up study into Chapter 11 filing for ailing U.S. nuclear unit

<http://www.japantimes.co.jp/news/2017/03/08/business/corporate-business/toshiba-speeds-study-chapter-11-filing-ailing-u-s-nuclear-unit-westinghouse/>

JJI

Struggling Japanese electronics and machinery giant Toshiba Corp. is accelerating a study on the possibility of filing for so-called Chapter 11 bankruptcy protection for its U.S. nuclear power plant unit, Westinghouse Electric Co., sources said.

Toshiba has dispatched a team to the United States for assessing impact of the possible Chapter 11 filing for Westinghouse, sources said Tuesday.

Through the use of the bankruptcy proceedings, Toshiba is apparently considering cutting off the risk of incurring additional losses from its U.S. nuclear business, according to the sources.

Chapter 11 of the U.S. bankruptcy code is seen as effective in helping a company achieve rehabilitation quickly in a transparent manner based on a turnaround program approved by a court while being allowed to continue business operations.

Toshiba is speeding up its assessment work in the run-up to a board meeting for endorsing its consolidated earnings for April-December last year, which are set to be announced on March 14, the sources said.

Specifically, the company has asked a U.S. law firm and others to estimate the amount of possible additional costs.

In fiscal 2016, which ends on March 31, Toshiba expects to suffer a loss of ¥712.5 billion from its nuclear business.

According to the sources, Toshiba would be able to limit additional losses and burdens if it promotes revisions to its nuclear plant construction deals and reduces debt through the possible Chapter 11 filing. But as Toshiba has guaranteed Westinghouse's debt worth some ¥800 billion as of the end of March 2016, it could face additional losses, the sources said.

A senior official from a financial institution said the Chapter 11 filing would increase Toshiba's losses by hundreds of billions of yen.

If Westinghouse files for bankruptcy protection under Chapter 11 within this month, Toshiba could not only see negative shareholder equity but also face an excess of debts on a net asset basis, sources said.

As Toshiba's creditor banks could withdraw loans from the company under such circumstances, some Toshiba officials are cautious about using Chapter 11.

Meanwhile, most Toshiba creditors have agreed to continue loans to the company through the end of this month.

With some creditors urging Toshiba to drastically review its nuclear business, the company and creditor banks are expected to discuss financing for April and later at their meeting on March 15, the day after the planned announcement of the firm's earnings in the first three quarters of fiscal 2016, the sources said.

Time for Japan to abandon nuclear power

March 8, 2017

Editorial: Reasons for Japan to dump nuclear power more obvious now than ever

<http://mainichi.jp/english/articles/20170308/p2a/00m/0na/014000c>

It has been nearly six years since the triple-meltdown at the Fukushima No. 1 nuclear plant. Two things seem symbolic of this time: the simultaneous lifting of evacuation orders for the Fukushima Prefecture village of Iitate and other nearby communities, and the recent glimpse of what appears to be melted nuclear fuel in the plant's No. 2 reactor.

One is significant for all those residents who had no idea when they would be able to return to their hometowns, and the other for how much we understand of what is going on inside the stricken Fukushima No. 1 plant reactors, which until recently had been very nearly nothing. Considering how things were going before, these developments can be considered a step in the right direction.

However, if we take a cold, hard look at the situation, there are facts that must be seen as equally representative of the current reality: that the disaster has stolen so much from so many, and that real recovery will be a decades-long struggle with reconstruction and plant decommissioning.

Any visitor to the Fukushima plant will get a keen sense of how demanding the work is to dismantle its ruined reactors. The area where full face masks are required has been significantly reduced, and working conditions have certainly been improved. However, there is still no target for removing the melted nuclear fuel from the reactors -- the greatest challenge to decommissioning -- and no prospect for setting one. Last month, plant operator Tokyo Electric Power Co. (TEPCO) inserted a "scorpion" robot into the No. 2 reactor containment vessel, and tried to steer it to a spot right under the core. However, its path was blocked by piles of dark material, and in the end the robot was unable to determine the state of the reactor's nuclear fuel.

There are more than 800 workers at the Fukushima plant. Some have been exposed to excessive radiation due to unexpected tasks. They are barred from working inside the reactor buildings, where radiation is extremely high, and absorb higher doses just by getting near them.

Nevertheless, the state of the nuclear fuel in each reactor must be ascertained, and a plan must be devised to remove it.

The No. 1 and 3 reactors are thought to be in worse shape than the No. 2 reactor. The government and TEPCO are aiming to extract the fuel from all the reactors starting in 2021, but that is wildly optimistic. A drastic rethink of the entire decommissioning strategy and schedule -- including the development of the robots that will take on much of the work -- is likely needed.

The burdens placed on Japanese society by the nuclear disaster include the swelling financial cost of dealing with its aftermath.

The Ministry of Economy, Trade and Industry says that reactor decommissioning, victim compensation, decontamination and other nuclear disaster-related costs will hit 21.5 trillion yen -- twice the initial estimate. However, even this figure does not include the cost of disposing of the melted nuclear fuel among other expenses, and is thus certain to rise.

We also cannot overlook the creation of a new system to charge third-party power suppliers to cover part of the compensation costs -- a charge the power supply companies will pass on to their customers, thus effectively making a wide swath of Japanese society pay for TEPCO's compensation liabilities. There are also apparently plans to implement a similar system to cover the decommissioning costs for Japan's aged reactors.

It has been less than a year since the power supply market was opened to competition. Making not just the big utilities but also the new third-party electricity suppliers with no connection whatsoever to the nuclear power business pay for reactor decommissioning is a blow to the very heart of electricity market liberalization. The government's insistence that "nuclear power is comparatively cheap even including accident countermeasure costs" no longer holds water.

If the government is to demand the Japanese people take on this financial burden, it must admit that the "cheap nuclear power" line doesn't match the facts, and reroute Japan's power generation plan to a nuclear-free future.

Looking at the harsh realities of dealing with the Fukushima nuclear disaster, we cannot consent to the ongoing string of reactor restarts. Utilities have applied to the Nuclear Regulation Authority (NRA) to restart 26 reactors at 16 plants under standards drawn up in the wake of the March 2011 Fukushima meltdowns. Just three reactors have been put back on line so far, but 12 more at six plants have or are expected to pass NRA inspections. Among them are three reactors that have been in operation for 40-plus years.

A majority of Japanese citizens are opposed to the restarts, conflicting with the government's evident enthusiasm for getting reactors back on line despite its stated goal of reducing dependence on nuclear power.

Over the past six years, we have learned that Japan would not run short of electricity if it abandoned nuclear power. A more deeply rooted argument in favour of nuclear generation is that it is needed to combat global warming.

Certainly, replacing nuclear plants with fossil fuel-driven power generation would increase carbon dioxide emissions. It is impossible to ignore the negative effect this would have on global warming. However, Japan's greenhouse gas emissions have in fact begun to dip slightly even as reactor restarts remain stalled. According to the Environment Ministry, fiscal 2015 greenhouse gas emissions were down 5.2 percent from fiscal 2005 levels, and 6 percent down from 2013 levels.

Japan is obliged by international treaty to reduce its greenhouse gas emissions by 3.8 percent from 2005 levels by fiscal 2020. The country has already met that commitment even without nuclear power.

Nevertheless, for Japan to strive for even greater reductions that it promised under the Paris Agreement, it must yet expand energy saving measures and renewable power generation.

Global investment in energy is shifting in force to renewables. According to the International Energy Agency (IAE), of the \$420 billion U.S. invested in power generation in 2015, some \$290 billion was put into renewables.

The prices of solar panels and wind turbines are falling fast, and offer a cheaper alternative to traditional thermal generation in an increasing number of cases.

The nuclear business is in decline in the developed world, as is evidenced by the deep troubles of Japan's Toshiba Corp. and France's Areva SA. At the same time, the renewable energy industry is growing by leaps and bounds.

If Japan shuts its eyes to this reality and continues to pour more of its resources into keeping nuclear power going than into renewable energy, it will likely be left behind by the rest of the world.

We have no choice but to carry the burden of the Fukushima nuclear disaster for decades to come. We will overcome this crisis, but we will need support.

To make sure we never have another nuclear disaster like the one in Fukushima, Japan should take the decision to abandon dependence on nuclear power. That would be the best support of all.

Time for Japan to abandon nuclear power (2)

March 9, 2017

EDITORIAL: 3/11 anniversary should compel reassessment of nuclear policy

<http://www.asahi.com/ajw/articles/AJ201703090038.html>

Six years after the 2011 Great East Japan Earthquake, which spawned a massive tsunami causing the reactor meltdowns at the Fukushima No. 1 nuclear power plant, the reconstruction of affected areas is still far from complete.

In particular, some 80,000 people are still living as evacuees from Fukushima Prefecture, where the crippled nuclear plant is located. There are no signs of regeneration in the devastated local communities around the plant.

Meanwhile, the damages from the nuclear disaster and the costs of cleaning up the mess keep ballooning. The harrowing situation notwithstanding, Prime Minister Shinzo Abe's government remains firmly determined to promote nuclear power generation as a vital "core power source" for the nation's energy future.

Is there any reasonable case for keeping Japan reliant on atomic energy despite the catastrophic accident the nation has suffered? Is nuclear power generation really a cheap source of power as the government and the electric power industry claim?

Swelling costs

Evacuees from Namie, a town in Fukushima Prefecture, voiced their anger and anxiety during a meeting held in February at a hall in Tokyo. The entire town had to be evacuated in the wake of the disaster. "Although we have been told that the decontamination work is over, radiation levels have not fallen enough for us to return home," one evacuee complained at the meeting, organized by the municipal government to hold informal talks with local residents. Another demanded continued financial support from Tokyo Electric Power Co., the operator of the Fukushima plant. "We have been driven out of the town by the nuclear accident. TEPCO should continue paying the housing rents of residents who cannot return." The evacuation order for central parts of Namie is set to be lifted at the end of March, allowing residents to return to their homes. But it is unlikely that many of the residents will actually do so. In Naraha and other areas where the evacuation orders have already been lifted, only around 10 percent of the residents have decided to live in their former homes again.

The horrible conditions inside the melted reactors are only beginning to become visible. When TEPCO recently deployed an inspection robot to look inside the No. 2 reactor at the plant, it found iron bars twisted by high temperatures and a sticky black lump. But the utility was forced to abort the inspection halfway by high levels of radiation, which would have killed a human in minutes, and sediment. No plausible idea has emerged about how to remove the melted nuclear fuel.

At the end of last year, the Ministry of Economy, Trade and Industry said the total costs of related compensation, decontamination and the decommissioning of the reactors will reach a staggering 21.5 trillion yen (\$187.92 billion).

The enormous financial burden, twice as large as the previous estimate, will have to be shouldered by the public through hikes in electricity bills and taxes.

The accident has also caused certain non-economic damages that cannot be expressed by numbers, such as shattered lives and ruined communities. There is no way to measure the true scale of damage caused by the disaster.

Government sticking to pro-nuclear power policy

The government has begun to step up its policy efforts to prevent TEPCO from going under. It has announced a plan to force new electricity suppliers that have entered the retail power market following its liberalization to bear part of the burden of paying compensation for the next four decades. The costs of compensation have so far been covered by TEPCO and the other utilities operating nuclear power plants. This new compensation-financing plan clearly reflects a policy of putting higher priority on the protection of nuclear power generation than on ensuring the benefits of the deregulation for consumers. It is designed to ease the burden on established utilities by passing part of the costs involved in nuclear power generation onto newcomers, which don't operate nuclear plants.

This outrageous plan underscores the grim reality that nuclear power generation is no longer sustainable without strong policy support from the government.

Still, the industry ministry insists that nuclear power maintains its cost advantage over other power sources even if the money needed to deal with the consequences of the Fukushima disaster is factored in. In making this case, the ministry refers to cost estimates announced in 2015. According to the estimates, the costs of producing electricity by building a new nuclear plant were lower than those of power generation at a thermal plant or a facility using renewable energy sources.

These estimates are used to promote the ministry's vision for the nation's energy supply in fiscal 2030, under which some 20 percent of total power consumption will be covered by nuclear power generation. But a raft of questions have been raised about these estimates. Experts critical of nuclear power generation say the cost estimates are based on the assumption that nuclear plants can long be operated without any serious trouble. Estimates based on the records of past operations and actual costs required show nuclear power generation is more expensive, they say. The costs of constructing nuclear power plants have also increased globally after the Fukushima accident, they point out.

The ministry's cost estimates are also based on many other questionable assumptions. There is no established technology for the envisioned nuclear fuel recycling system, for instance. There are many variables concerning the process of establishing the system that could radically change the math.

Progress in the efforts to select the final disposal site for high-level radioactive waste has been glacial, leaving the crucial issue unsolved for many years.

These are issues that are also related to the existing nuclear power plants.

While upholding the policy of promoting atomic energy, the successive governments have been putting off tackling these and other sticky issues or taking stopgap measures at best.

This approach has reached its limitations.

Plan to phase out nuclear power needed

This happens to be a year in which the government is scheduled to make its regular, fundamental review of the nation's energy policy.

The government should take this opportunity to make rigorous fresh assessments of the costs, risks and advantages of various power sources including nuclear energy and incorporate them into the new policy. It is vital to invite opponents of the government's nuclear power policy as well as proponents to take part in the work to ensure that the issues will be discussed from diverse perspectives.

Outside Japan, Germany and Taiwan have decided to phase out nuclear power generation. Some other industrial nations are shutting down nuclear plants ahead of schedule and pursuing goals to reduce their dependence on atomic energy.

For a society that places a premium on safety, nuclear power generation is becoming a hot potato because of many unsolved problems concerning accidents and nuclear waste.

The trend was set by the Fukushima disaster. The introduction of stricter safety standards and resultant cost increases have led to the current financial crisis at Toshiba Corp.

What the Abe administration should do is face up to the grim realities of nuclear power generation and pay serious attention to public concerns about plans to restart offline reactors. It then needs to make serious efforts to work out a specific plan to steadily lower Japan's dependence on nuclear power.

The prevailing logic of the closed community of people and organizations with vested interests in promoting nuclear power generation and the safety myth they successfully peddled set the stage for what transpired in Fukushima.

The government needs to look back on the six painful years following the nuclear disaster and embark on remaking its energy policy into a more reasonable and sustainable one.

--The Asahi Shimbun, March 9

Normalizing radiation risks for women and children

March 8, 2017

Six years after Fukushima began, "normalizing" radiation exposure risks the health of women and children; evacuees are given few options but to return to contamination

<http://www.beyondnuclear.org/japan/2017/3/8/six-years-after-fukushima-began-normalizing-radiation-exposu.html>

BEYOND NUCLEAR PRESS RELEASE

FOR IMMEDIATE RELEASE: March 8, 2017 (International Women's Day)

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Six years after Fukushima began, "normalizing" radiation exposure risks the health of women and children

Evacuees are given few options but to return to contamination

TAKOMA PARK, MD- Six years after the Fukushima nuclear catastrophe began, Japan is lifting evacuation orders in a narrow radius around the ruined reactors, and removing compensation for evacuees. These evacuees will be moving back to towns that are still contaminated with hazardous radioactivity that can reach 20 times the internationally recommended level for human exposure. Even at the recommended level, most people would end up doubling the annual dose that they normally receive from unavoidable natural background.

Radiation is associated with disease, even at low levels. Females, children and pregnancy are especially vulnerable to radiation damage, but many of these sensitivities are unaccounted for in international

recommendations. Despite these unique vulnerabilities, and lack of protection for them, women and children are often accused of “radiophobia”, characterized by nuclear proponents as an irrational fear of radiation exposure—a point highlighted in a recent article in *Counterpunch* by Beyond Nuclear’s Radiation and Health Hazard Specialist, Cindy Folkers.

“Females, children and pregnancy pay a disproportionate health price for nuclear energy because they are especially vulnerable to radiation damage. When a catastrophe like Fukushima happens, they become targets of ridicule for asking about safety, and often end up socially isolated or worse.

“In reality, science shows that women have every right to express grave concern over exposure to radioactivity without unscientific, misogynistic terms like ‘radiophobia’—or in the case of Japan, ‘radiation brain mom’—being applied to them,” said Folkers.

In the wake of catastrophes that release hazardous man-made radioactivity, national and international agencies have acted to “normalize” radiation exposure by endorsing higher levels of allowable exposures (sometimes up to 20 times recommended levels) as well as encouraging the growing, eating and distributing of contaminated foods.

In the United States, the Environmental Protection Agency has recently recommended levels of radioactive contamination that are hundreds, even thousands or more, times higher after a nuclear incident. Under these Orwellian-named Protective Action Guides (PAGs), people could be exposed to these unsafe levels for years.

“These attempts to ‘normalize’ radiation exposure, by telling people it’s alright to get more radiation than they already are, will continue to leave women and kids unprotected both internationally, and in the event of another nuclear catastrophe in the U.S.,” Folkers contends.

According to the first-of-its-kind United Nations investigation linking health impacts of industrial radiation from a nuclear catastrophe to human rights, economic convenience is an unacceptable reason for increasing allowable levels of exposure post accident. A just-released report details how the nuclear catastrophe at Fukushima, and the official response to it, continues to be in violation of women’s and children’s human rights. This report is by Kendra Ulrich, a senior global energy campaigner for Greenpeace Japan, and a Beyond Nuclear board member.

“On this International Women’s Day, we need to remember, women’s voices should count for more, not less. The fact is, women and children are more vulnerable to radiation’s harmful impacts, and the life-stage of pregnancy is uniquely sensitive. Since they pay the highest price for nuclear power and its releases, they should have a greater say in the energy decisions we currently face, and in how we protect those whose lives are devastated by nuclear catastrophes,” says Folkers.

-30-

Update on March 8, 2017 by admin

Also see the blog by Kendra Ulrich of Greenpeace Japan, as well as the video of some of the women fighting for compensation (please like and share it!).

Far from back to normal

March 10, 2017

Six years after the 3/11 disasters

http://www.japantimes.co.jp/opinion/2017/03/10/editorials/six-years-311-disasters/#.WMLcJ_KISos

Life remains far from back to normal for tens of thousands of people displaced by the March 11, 2011, disasters that hit the Pacific coastline of northeastern Honshu. That as many as 36,000 people in Miyagi, Iwate and Fukushima prefectures are still living in prefabricated temporary housing units six years later says a lot about the difficulties that are hindering the reconstruction of lives shattered by the Great East Japan Earthquake and the massive tsunami that swept the Tohoku coastal areas, as well as the meltdowns at Tokyo Electric Power's Fukushima No. 1 nuclear plant that forced residents out of their hometowns. The government must keep extending the maximum support that these people need.

Six years after the mega-quake and tsunami left more than 18,000 people dead or missing, about 123,000 people remain displaced from their hometowns, living in temporary housing units, rented apartments or relatives' and friends' homes across the country. Many are believed to have given up hope of returning and have started new lives where they ended up. The figure is down from 174,000 a year ago, and is roughly a quarter of the estimated peak of 470,000 right after the disasters. But nearly 80,000 people from Fukushima Prefecture alone remain away from their homes after they were either ordered to flee from the radioactive fallout from the Tepco plant disaster or voluntarily evacuated out of fears of radioactive contamination of their native communities.

Restoration of infrastructure damaged by the tsunami has seen steady progress. According to the agriculture ministry, 96 percent of farmland in Miyagi and 77 percent in Iwate that had been flooded with seawater has been restored to arable conditions, while the ratio still stands at 46 percent in Fukushima since farms around the wrecked nuclear plant remain off-limits. The fisheries output at key ports in the three prefectures has recovered to 70 percent of the pre-2011 levels. More than 90 percent of the damaged railway services and roads have been restored.

But reconstruction of people's lives disrupted by the disasters continues to be slow and uneven. Of the 53,000 "temporary" units for evacuees set up in the three most heavily affected prefectures, 45,000 — more than 80 percent of the total — are still standing. The number of residents in such units had fallen to 35,503 as of the end of January — about 30 percent of the peak — as many of the occupants vacated when they rebuilt their homes or moved to public apartments for the surviving disaster victims. But with nearly half of the temporary units now vacant, the residents who remain are losing the sense of community they once had and face the risk of isolation.

Following the 1995 Great Hanshin Earthquake, which killed more than 6,000 people in Kobe and its environs, all temporary units for evacuees were vacated within five years. Of the 51 municipalities in the three Tohoku prefectures that built the temporary units for evacuees, only 11 have managed so far to tear down all of their units — meaning that all evacuees were able to move on to new accommodations. In some municipalities, many of them in Fukushima where the nuclear-based evacuation has become protracted, it is unclear when all the temporary units will be dismantled.

Tepco continues to struggle in its efforts to clean up the mess from the three meltdowns at Fukushima No. 1, which lost emergency power to cool the reactors after it was flooded by the giant tsunami. Work to dismantle the crippled plant is estimated to take decades, as the massive radiation levels — which were estimated at 650 sieverts per hour inside the primary containment vessel of its No. 2 reactor in a recent robot probe — clouds the prospect of removing the melted nuclear fuel.

The government meanwhile has been moving to lift evacuation orders in areas around the plant where decontamination efforts and reconstruction of public infrastructure are deemed to have progressed. It plans to allow the return of residents to four Fukushima municipalities — Iidate and Kawamata and parts of Namie and Tomioka — at the end of the month. Areas off-limit to residents will then be reduced to roughly 30 percent of the peak.

The upcoming move will pave the way for the return of up to 32,000 residents to these municipalities. However, it is not clear how many of them will actually return — as many of the former residents, particularly the younger generation — are reportedly concerned about life back in the hometowns where infrastructure related to their daily lives, such as shopping, education and medical services, may not have been restored. Kyodo News has reported that in Fukushima municipalities where the evacuation orders have been lifted since 2014, only an average of 13 percent of their former residents have returned. In a Reconstruction Agency survey, more than 50 percent of the former residents of Namie and Tomioka said they have decided not to return if the evacuation order is lifted, with the ratio of such respondents rising to 70 percent among the younger generation up to their 30s.

Six years on, efforts to rebuild the shattered lives are largely unfinished. And that should be the government's policy priority going forward.

Nuclear engineering does not attract talented students any more

March 10, 2017

Nuclear energy industry lacks new talent as Fukushima fallout turns off graduates

<http://www.japantimes.co.jp/news/2017/03/10/national/nuclear-energy-industry-lacks-new-talent-fukushima-fallout-turns-off-graduates/#.WMLaPPKISos>

by Daisuke Kikuchi

Staff Writer

At a Tokyo job fair for the atomic energy industry on March 4, Kenta Kakitani, a graduate student at the University of Tokyo, hopes to some day become a nuclear plant design engineer.

But Kakitani may be a rare breed in Japan, where nuclear businesses have seen a serious shortage of new talent since the March 11, 2011, meltdowns at the Fukushima No. 1 power plant, the world's worst nuclear disaster since Chernobyl in 1986.

"It seems that the nuclear power industry has lost much of its popularity because it is seen as in decline and is suffering a negative image from having to decommission crippled reactors," said Kakitani, 24, who majors in nuclear engineering.

According to education ministry data, 298 students entered departments related to nuclear power study in fiscal 2015, a slight decline from 317 in fiscal 2010.

Kakitani said that although the number may not have declined drastically, many talented students are majoring in the fields of artificial intelligence and aerospace engineering instead of nuclear engineering. The turnout at the job fair reflects the nuclear power industry's fall from grace.

In fiscal 2010, 1,903 students attended a nuclear industry job event. In fiscal 2015, only 337 showed up. This year's tally won't be known until after a job fair in Osaka on Saturday.

Demand in the industry for graduate talent, however, is on the rise. Firms participating in the job fair, including big names like Tokyo Electric Power Company Holdings Inc., Toshiba Corp. and Hitachi Ltd., rose from 34 in fiscal 2012 to 59 in fiscal 2016, organizers said.

But recent news that scandal-hit Toshiba is scaling back its atomic business isn't helping to attract graduates.

Akio Takahashi, president of the nonprofit group Japan Atomic Industrial Forum Inc. (JAIF), which organized the Tokyo job fair, worries that Japan will not have enough nuclear engineers even though it will take several decades to decommission Fukushima No. 1.

"It will be problematic if we run short of manpower," said Takahashi.

Since the meltdown calamity struck, nuclear plants have faced stricter safety standards. Reactors are now required to be equipped with dozens of additional safety features to defend against various situations, including meltdowns, tsunami and terrorism.

Nuclear plant operators have had to come up with new reactor designs and deal with mountains of paperwork for submission to the Nuclear Regulation Authority, Japan's nuclear watchdog, which has final authority over whether a reactor can be restarted under the new safety standards.

Japan Atomic Power Company, which runs reactors in the village of Tokai, Ibaraki Prefecture, and in Tsuruga, Fukui Prefecture, plans to hire about 30 rookie engineers in April 2018.

"After the Fukushima incident, nuclear power faced strong criticism. However, talking to the students today, I felt that more of them are interested in nuclear power," said a JAPC official at the job fair.

The situation is more serious at the NRA, which assesses and inspects nuclear plants. The NRA, which also set up a booth at the job fair to lure prospective students, hasn't made it a secret that it lacks enough competent staff to verify whether reactors are up to the safety standards.

The industry also believes nuclear engineering students are not receiving enough training.

Following the Fukushima meltdowns, research reactors, which, like their commercial counterparts have suspended operations, must clear the new safety standards before they can be restarted. For now they are idle.

"Over the past two to three years, students have graduated without engaging in the basic experiments that are of utmost importance in studying nuclear power," said Keiko Kito, a JAIF staffer who is also a member of the Japan Nuclear Human Resource Development Network (JN-HRD Net). "They may need to study further after research reactors are reactivated at universities."

The network consists of schools, companies and government organizations, including the education and industry ministries.

Education ministry official Ryosuke Murayama noted that research reactors were necessary to nurture students who can develop and operate nuclear plants, but would not help those seeking to experiment with ways to decommission reactors.

"One of the experiments considered necessary in the basic research associated with the decommissioning of plants involves the secular change in fuel debris. Honestly, it doesn't require research reactors," said Murayama.

Murayama is in charge of the ministry's program to decommission Fukushima No. 1, offering budgets to schools and corporations if their research disciplines are considered effective.

The ministry also earmarked about ¥60 million a year until 2019 for a Fukushima University program aimed at educating students and training working-level technicians for decommissioning the Fukushima No. 1 plant.

Starting in April, roughly 20 students enrolled in the program are set to visit Fukushima No. 1 as part of extracurricular study.

Fukushima University President Katsumi Nakai reportedly plans to offer similar opportunities to students outside the program, such as those studying psychology or risk communications, starting in 2018.

The education ministry, in cooperation with other organizations, including JN-HRD Net, formed a working group in 2015 to look into the human resources needs of the country's nuclear power industry, according to a report published in 2016.

"Decommissioning will take decades," said Murayama of the education ministry. "We hope to develop human resources in various fields. Other than those with traditional nuclear engineering backgrounds, we may want people from the fields of robotics, chemistry and even civil engineering."

But whether the government effort will bear fruit remains to be seen.

Of the students who attended the job fair, those majoring in other disciplines besides nuclear energy, including in electrical and electronic engineering and liberal arts, were in sharp decline.

Less than 50 liberal arts students showed up at the event in fiscal 2015, down from over 250 in fiscal 2010, according to JAIF.

Moreover, a JAIF staffer said the decline in liberal arts students showed the lack of popularity of the nuclear power industry.

This series looks at the lasting impact of the March 11, 2011, disasters.

Is Toshiba creating a diplomatic incident?

March 10, 2017

Toshiba U.S. nuclear power unit liquidation may flare into diplomatic dustup

<http://mainichi.jp/english/articles/20170310/p2a/00m/0na/012000c>

Toshiba Corp.'s plan to seek Chapter 11 bankruptcy protection for Westinghouse Electric Co., the Japanese electronics giant's U.S. nuclear unit, could develop into a diplomatic problem.

- **【Related】** Toshiba's U.S. unit Westinghouse to explore Chapter 11 bankruptcy
- **【Related】** Confusion erupts as Toshiba delays earnings report
- **【Related】** Risk of breaking up hangs over Toshiba after 712 billion yen nuclear loss in U.S.

Toshiba is considering applying for bankruptcy protection for Westinghouse in an apparent bid to eliminate risks of losses through canceling unfavorable contracts that the subsidiary had signed. Still, it remains to be seen whether Toshiba will be able to proceed with the application.

Westinghouse is currently building two cutting-edge AP1000 reactors at V.C. Summer Nuclear Station in South Carolina. However, under the contract with the plant's owner, Westinghouse must foot any costs caused by delays in the work and other problems.

Westinghouse's expenditures have snowballed as a result of a long delay in the work largely because Westinghouse, which had not built a nuclear reactor in the U.S. for about 30 years, was inexperienced, causing a huge amount of losses to Toshiba, according to a senior official of the electronics giant.

As such, calls have been growing within Toshiba urging that the company apply for Chapter 11 bankruptcy protection for Westinghouse to eliminate nuclear power station-related cost risks. A lawyer who specializes in the U.S. Bankruptcy Code is optimistic that, considering the state of Westinghouse, a U.S. court would uphold such an application.

Former U.S. Nuclear Regulatory Commission (NRC) official Lake Barrett has pointed out that cost overruns are common when building state-of-the-art nuclear reactors, and that the power company and the contractor normally share those extra outlays.

Still, there is a high hurdle for applying for Chapter 11 bankruptcy protection.

Westinghouse is also building two reactors at the Vogtle Electric Generating Plant in Georgia. The state's Public Service Commissioner Tim Echols has warned Toshiba's application for Chapter 11 bankruptcy protection would be a terrible choice.

The U.S. government has guaranteed \$8.3 billion (some 950 billion yen) in loans for the construction of two AP1000 reactors at Vogtle. If Westinghouse goes into Chapter 11, the matter could develop into a diplomatic dispute.

Economy, Trade and Industry Minister Hiroshige Seko is set to visit the U.S. shortly and possibly meet with Secretary of Commerce Wilbur Ross and Secretary of Energy Rick Perry to ascertain the U.S. stance toward the Westinghouse situation.

Namie: What future?

March 11, 2017

Namie: one step forward, a few steps back

Home holds little appeal for Namie evacuees

<http://www.japantimes.co.jp/news/2017/03/11/national/social-issues/namie-one-step-forward-steps-back/#.WMPqLvKISos>

by John L. Tran

Special To The Japan Times

“Shayo” (“Setting Sun”) is a somber, somewhat ominous photographic image created in 1914 by Hidaka Chotaro (1883-1926). It is a sepia-toned picture of a small hamlet over which loom dark mountains and the oncoming night.

A member of the amateur Nagoya-based Ai-yu Photography Club, Chotaro sought out isolated mountain and coastal landscapes to create pictorial images of traditional life in response to a question that has troubled Japan since the country started on the road of industrialization: Can its rural communities survive, culturally and economically, in the modern world?

Chotaro's style was part of a worldwide trend of creating photographic prints that resembled Victorian-era oil paintings and, as a result, was commonly used to romanticize nature and oppose modernity with nostalgia for a mythical past. “Shayo,” whose title alludes to a more metaphorical decline, may not be a ground-breaking work of art in itself, but it has historical value as a representation of the anxieties of its time.

More than 100 years later, the issue of rural depopulation is more serious than ever and probably nowhere is this problem more acute than in the area around the Fukushima No. 1 nuclear power plant. The reason for empty houses, shops and businesses may on the surface seem to be obvious — and qualitatively different from what is causing the decline in other parts of Japan — but it's not just concern about radioactivity.

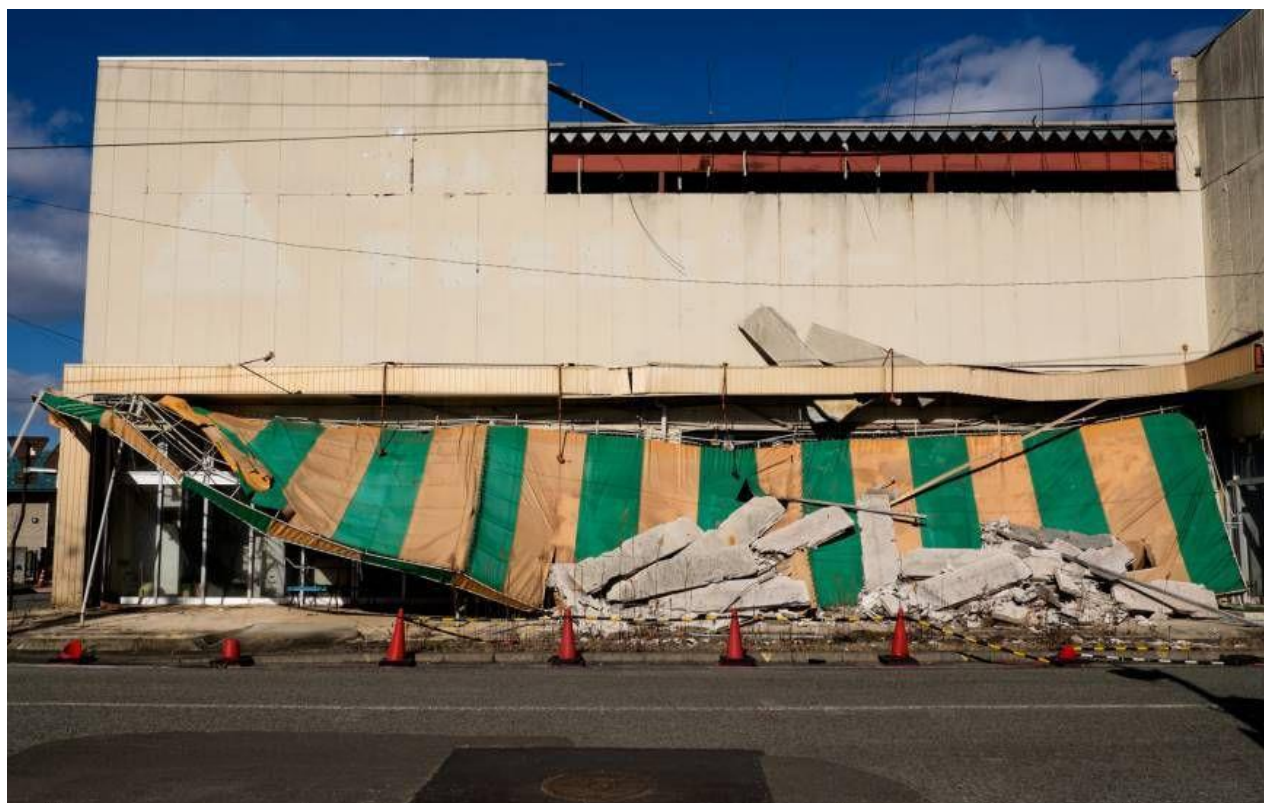
From April this year, parts of Namie, a region that was heavily contaminated by radiation from the meltdowns at the plant caused by the earthquake and tsunami that struck Tohoku on March 11, 2011, will be open for residents to reoccupy permanently, but far fewer people are taking up the offer than local and central governments would like. **In a September 2016 poll, only 17.5 percent of evacuees responded that they intended to return to where they lived before the disaster.**

A retired head teacher from the local primary school who is now head of one of the local residents' committees is fairly sanguine about radioactivity.

"I'm not worried about radiation," he says as he visits his property in the evacuated zone to till one of his fields, "but a lot of people are afraid to move back. They're more scared of crime."

Although he admits he has no justification for it, he presumes that a lot of the burglary has been perpetrated "by foreigners." Other concerns are the damage to property from vermin and other wildlife, and the dread of being constantly faced with traumatic memories and the thought of lost loved ones.

The government is wasting huge amounts of money decontaminating areas for habitation when no one wants to move back, he says.



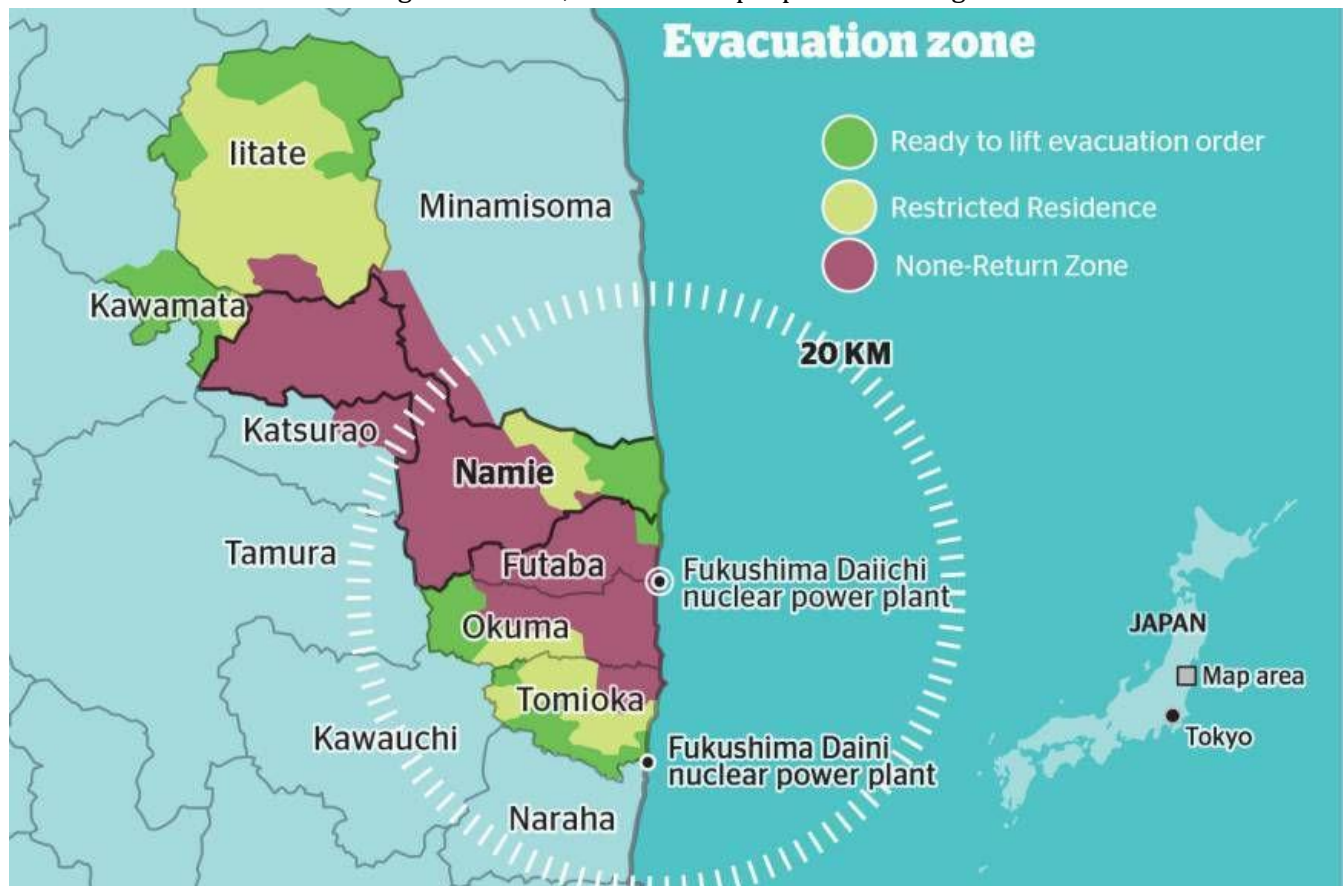
Shinichi Kaneyama, head of Namie's reconstruction effort, shares this point of view. Speaking in an empty town hall located at one end of Namie's deserted main street in January, Kaneyama expresses doubt that the main objective of reconstruction should be to sanitize areas in the expectation that evacuees would want to return to their homes.

“We don’t have concrete plans on how to revitalize the area. It’s something we’re working on now,” Kaneyama says, somewhat nervously.

“I used to love fishing around here when I was a kid,” he says. “Fishing was important for the area generally and I wish we could revive that ... but, with the water carrying radiation down from the mountains, I don’t know if that’s possible.”

Along with the local police, construction workers and radiation screening facility staff who work in the area and live nearby, Kaneyama is confident that he is not at risk from radiation, and that the reason many people don’t want to move back is not knowing how they’d make a living.

A scant 39 businesses, of a pre-3/11 total of around 1,000, are listed as being open in the area, according to the 2017 Namie Reconstruction Report. This dearth of amenities and job opportunities forms part of a vicious circle — there is nothing to return to, because few people are coming back.



There is radiation as well, of course. The Environment Ministry map of Fukushima shows a red smear running northwest from the crippled nuclear plant. The Namie district is divided into three zones: A, B and C. Zone A, closest to the coast, is the one that is scheduled to be fully open from April. Zone B has an annual accumulated radioactivity reading of 20-50 millisieverts. As the safe limit for exposure to radiation was set after 3/11, not without controversy, at 20 mSv by the government, it is open for people to drive through and for property owners to check on their homes and buildings, but not deemed sufficiently decontaminated for re-population.

The area northwest of the plant, Zone C, which lay directly under the plume of radiation from the venting of containment vessels, is described elliptically in the Namie Reconstruction Report as having an annual reading of “50 mSv or more.” Entry into this area, which constitutes 81 percent of the district, is strictly forbidden, and Zone C is considered too large to decontaminate in the foreseeable future.

Differences between how this situation is presented in the local council's Namie Reconstruction Report and how it is couched by the Environment Ministry and the Ministry of Economy, Trade and Industry (METI) are understandable, but telling nonetheless.

Decontamination is a priority for all three organizations, but Namie officials also view health care, education, housing and transport as issues that must be resolved. By comparison, the metrics of success for the Environment Ministry are the number of hectares decontaminated and the volume of radioactive soil put into interim storage.

METI's goals are defined in terms of returning people to their homes as quickly as possible, monitoring water quality and providing financial compensation to disaster victims. If you have any doubts that the central government may have been lacking in competency or transparency in its handling of the 3/11 nuclear crisis, do not watch their clumsy Orwellian video "Fukushima Today — For a Bright Future."

Noboru Takano used to run a construction business in Namie and now lives with his wife in temporary housing in Minamisoma. Takano doesn't see a future in going back. He's retired but does the odd contract job, as well as being head of a local residents' committee.

Speaking in a small community center in Minamisoma, Takano says that although people are gradually moving out of the temporary housing, they are not returning to Namie, and are instead choosing to live elsewhere. Like Kaneyama, Takano thinks that **Namie is being cleaned up and new housing is being built because people get paid to do it, not because anybody is keen to move back.**

"For older people there's nowhere convenient to shop. ... You'd need to drive a long way just to get groceries," Takano says. "There's nothing I want to go back to. For younger people, I'm worried that they have no opportunities.

Takano is both jovial and stoic when talking about his hometown and his present situation. He's reasonably comfortable and doesn't want to dwell on the past.

Not everyone has fared as well. Out of a total pre-March 2011 disaster population of 21,434, 399 Namie residents have died from "evacuation stress," as it is called in the Reconstruction Report — more than double the number of people who were killed by the earthquake and tsunami.

Kenji Kubota, a curator who founded Japan Art Donation to raise funds for artists to get involved with disaster relief within days of 3/11, understood very early that mental health would be a major issue and that people, not just structures, would also need rebuilding.

Kubota later worked with the University of Tsukuba on the Creative Reconstruction Project, in which a number of different art and design schemes were developed to provide emotional support for evacuees living in temporary housing.

A particularly acute problem, he noticed, was the uncertainty of not knowing how long the limbo of being displaced would last. He also wanted to show how disaster victims felt that they were being forgotten and that their concerns were not being heard.

One of the main outcomes from the array of art and design workshops and community activities that resulted from the project was the creation of a documentary film titled "Iwaki Note: Fukushima Voice." Essentially a student project, the documentary is a little rough around the edges and doesn't have a strongly constructed central narrative, something that professional filmmakers might have worked harder to create. It is, however, a more subtle and powerful piece of work as a result. Rather than providing viewers with an emotionally cathartic story of human triumph over adversity, it portrays people who have individual and complex identities, over and above being victims of a disaster, struggling together to find solutions to their problems.

How useful can art and design projects be in helping to alleviate the effects of natural — and not-so-natural — disasters? Where large projects funded by public money are concerned, there will always be questions about cost-effectiveness, especially since it's hard — and perhaps counterproductive — to measure success when it comes to matters of creative practice.

Chiba-based freelance designer Seiji Tarumi does have two stories that are fairly convincing, however. Working with independent collective Tsumugiya, he designed fashion accessories with the surplus materials of deer horn and fishing line. The aim was to provide an occupation for oyster farmers' wives in Makinohama near Ishinomaki after the tsunami destroyed the local oyster beds.

One woman, who had lost everything in the disaster and was suicidal with depression, wrote to Tsumugiya after joining the jewelry workshop to say that the opportunity to get together with other oyster farmers' wives and do something productive gave her a reason to smile and laugh for the first time since 3/11.

More recently Tarumi has been working with the Door to Asia designer-in-residence program, and designed packaging for an apple grower and winemaker based in Ofunato, Iwate Prefecture.

The client had moved back to his hometown in the wake of 3/11 after living for a time in Tokyo. He had wanted to start a business that could revitalize the area but was having trouble promoting his brand. Tarumi put his client's story in the packaging and gave the brand a fresh new look, which has helped it become a premium product in department stores and lifestyle shops nationwide.

One of the clearest examples of clever design being of direct practical use can be found in the city of Kamaishi, located a few kilometers up the coast from Ofunato.

Robin Jenkins, a senior lecturer in interior and spatial design at Chelsea College of Arts in London, worked in collaboration with nonprofit organization Future Lab Tohoku to devise the Lifeboat in a Box project. To keep costs and red tape to a minimum, a "lifeboat station" was designed to go in the container in which the U.K.-built rescue boat was shipped to Japan.

Annual training workshops are held to ensure that the lifeboat is maintained as a practical asset for the local community, and as an excuse for students of Jenkins' old school, UWC Atlantic College, to meet and work with the people of Kamaishi.

Art and design may not be the first things that come to mind when thinking of post-tsunami reconstruction. However, if the northeastern coastline of Japan is going to recover after the debris and irradiated soil are cleared away, it faces the same economic and social problems that threaten all rural areas of Japan.

In 1987, the Ministry of International Trade and Industry attempted to combat rural decline with the introduction of a Resort Law that parachuted theme parks such as Huis Ten Bosch into outlying areas. After the bubble burst, most of those theme parks had to close or restructure. No more bread for the circuses, as it were.

Can art and design succeed where leisure resorts failed? METI's Cool Japan/Creative Industries Policy was launched two months after the 2011 disaster, and the proliferation of regional art festivals and biennales around Japan ever since is evidence that they are taken seriously as tools of economic policy.

The notion of anything "cool" coming out of a central bureaucracy is lamentable but, at the very least, creative practice is seen as having value in the abstract. From this there is a space to think about what is possible, and that is better than being left to lament what is lost, or trying to return a status quo that already had inherent problems.

"A much better country with zero nuclear plants" (Koizumi)

March 12, 2017

Ex-PM Koizumi repeats call for 'zero nuclear power plants'

<http://mainichi.jp/english/articles/20170312/p2g/00m/0dm/056000c>

SAPPORO (Kyodo) -- Former Prime Minister Junichiro Koizumi on Saturday repeated his call for Japan's complete departure from nuclear energy as the country marked the sixth anniversary of the Fukushima nuclear disaster.

"Nuclear power plants will become a negative legacy for future generations," Koizumi said at an event organized by a civic group in Sapporo.

The group is seeking the decommissioning of nuclear reactors at Hokkaido Electric Power Co.'s Tomari power station on Japan's northernmost main island.

"(Japan) can become a much better country with zero nuclear power plants, harnessing natural energy," Koizumi said, adding it will not be so difficult to replace nuclear energy with renewable energy if technological innovation advances.

After his speech, Koizumi criticized Prime Minister Shinzo Abe's policy which promotes restarting nuclear plants most of which remain offline and exporting nuclear reactors.

"If the prime minister said 'zero (nuclear power),' the situation will greatly change. I don't know why he can't understand this," Koizumi said.

How do you count evacuees?

Mardi 12, 2017

24,000 evacuees not counted by Fukushima govt.

https://www3.nhk.or.jp/nhkworld/en/news/20170312_13/

NHK has learned that the Fukushima prefectural government's estimate of the current number of evacuees from the 2011 disaster is about 24,000 less than the figure calculated by local municipalities.

Earlier this month, officials said about 80,000 people were still living in shelters because of the tsunami and nuclear accident.

This includes 17,781 residents of 5 municipalities around the crippled Fukushima Daiichi plant who were evacuated to other parts of the prefecture.

But NHK's survey found 42,030 people had left these municipalities -- about 24,249 more than the prefectural government's figure.

Officials from the 5 municipalities say their estimate includes all the people who evacuated to other parts of the prefecture, but the Fukushima government's calculation excludes those who moved into public

housing or acquired new homes in other areas of the prefecture.

A visiting associate professor at Fukushima University, Kazuhiko Amano, says many residents still dream of returning to their hometowns even after they have found a place to live.

He says **surveys should also cover the type of housing and whether evacuees are living normal lives**. He says the prefectural government's counting method may underestimate the number of people who actually need support.

Letter to the IOC

March 13, 2017

Letter sent to by **Mitsuhei Murata**
Former Ambassador to Switzerland
To Mr. Bach, President of the IOC

Sent: Monday, March 13, 2017 3:37 PM

Dear President Thomas Bach,

I wish to remind you of the serious warning of Professor Shuzo Takemoto concerning the problem of the Unit 2 of the Fukushima Daiichi. In his view, if the building of the Unit 2 should encounter an intensity 7 earthquake, which is considered highly possible, it will be destroyed and scatter the remaining nuclear fuel and its debris, making the Tokyo metropolitan area uninhabitable. Last week, two big earthquakes, whose seismic intensities were 5 and 4, actually occurred in Fukushima.

Conscientious Japanese citizens are bewildered by the widening gap between the ongoing Olympic preparations and the increasing report regarding the deepening of the Fukushima crisis. The Moritomo School scandal continues to draw nation-wide attention, reminding us of its similarity with the total breach of the initial commitments by the Tokyo Olympics.

Six years after the 3/11 Fukushima accident, the policy of returning refugees to their home towns based on the 20 millisieverts ICRP standard is maintained.

Last week, Japanese television TBS interviewed its vice chairman Jacques Rochard who expressed his surprise that this standard, destined to cases of emergency, should not have been lowered as initially recommended.

It is urgently needed to correct the current policy.

The foregoing is fully supported by the following two articles.

**<http://www.counterpunch.org/2017/02/20/fukushima-a-lurking-global-catastrophe/>
<https://limitlesslife.wordpress.com/2017/03/12/remembering-6th-anniversary-of-fukushima-march-11-2017/>**

We are being reminded of Chinese ancient Lao Tsu's famous saying "Heaven's vengeance is slow but sure".

This is the will of heavens and the earth, that is to say, the law of history researched by philosophy. We are taught by this law that immorality is not allowed to last long and that all dictatorships are made to end.

More and more Japanese citizens are calling for the retreat from the Tokyo Olympic 2020. Le Figaro has reported the appearance in Paris of a call for boycotting it.

<http://www.lefigaro.fr/flash-actu/2017/03/11/97001-20170311FILWWW00139-manifestations-contre-le-nucleaire-ce-samedi.php>

The International Olympic Committee faces a heavy responsibility. Please allow me to count on your understanding and your support.

**With highest and warmest regards,
Mitsuhei Murata
Former Ambassador to Switzerland**

Disaster anniversary speech: No mention of "nuclear" nor "disaster"...

March 14, 2017

SIX YEARS AFTER: Fukushima governor irked at omission in Abe's speech

<http://www.asahi.com/ajw/articles/AJ201703140048.html>

By AYA NAGATANI/ Staff Writer

FUKUSHIMA--Fukushima Governor Masao Uchibori expressed his frustration at Prime Minister Shinzo Abe's failure to mention the nuclear accident in Fukushima during a speech on March 11 on the sixth anniversary of the Great East Japan Earthquake and tsunami.

"This is an accident that does not exist in the past tense, but in the present progressive form," Uchibori said at a regularly scheduled news conference on March 13. "It is not possible to avoid using the important and significant terms of the nuclear plant accident or nuclear power disaster."

He added that the prime minister's failure to use such terms in a memorial event speech to remember the victims of the March 11, 2011, disasters left Fukushima residents with a sense of discomfort.

"Fukushima Prefecture has experienced enormous damage from a terrible nuclear accident that is unprecedented in the world," Uchibori said in the news conference.

While Abe did not mention the nuclear accident at the Fukushima No. 1 nuclear power plant, which was triggered by the earthquake and tsunami, he did not forget the prefecture completely in his speech at the National Theater in Tokyo's Chiyoda Ward.

"I feel that the rebuilding process in Fukushima has entered a new stage with the lifting of evacuation orders for various parts of the prefecture," Abe said.

The government-sponsored event has been held annually on March 11 since 2012. Abe has spoken at the commemorations from 2013 until 2016 and mentioned the fact that many Fukushima residents could not return to their hometowns due to the nuclear accident.

* * *

Fukushima governor unhappy with Abe's disaster anniversary speech

<http://www.japantimes.co.jp/news/2017/03/14/national/fukushima-governor-unhappy-abes-disaster-anniversary-speech/#.WMgVvWdFeot>

JJI

FUKUSHIMA – Fukushima Gov. Masao Uchibori signaled his displeasure with Prime Minister Shinzo Abe's failure to refer directly to the nuclear crisis during a speech at Saturday's government-sponsored memorial ceremony for the March 2011 disaster.

"I felt at odds (with his speech) as a Fukushima resident," Uchibori said Monday at a news conference. Uchibori said that "Fukushima Prefecture has been suffering from tremendous damage" related to the nuclear accident at the Fukushima No. 1 nuclear plant, stressing that the damage "is ongoing, not in the past tense."

The phrases "nuclear accident" and "nuclear disaster" are indispensable in such speeches, he said.

Abe said in his speech on the sixth anniversary of the 3/11 earthquake and tsunami that infrastructure in areas devastated by the disaster is now almost restored. He also said evacuation advisories issued to areas near Tokyo Electric Power Company Holdings Inc.'s disaster-stricken plant have been lifted in stages.

Noting that more than 120,000 people are still living as evacuees, Abe said his government will work to provide seamless support.

But he did not use the phrase "nuclear accident" in this year's address, in a change from previous speeches.

At a news conference in Tokyo on Monday, Chief Cabinet Secretary Yoshihide Suga said "the memorial ceremony was intended for disaster victims, including those affected by the nuclear accident, and the speech referred to the reconstruction of Fukushima. There is no way that (the nuclear accident) is being forgotten."

Yomiuri apologises

March 15, 2017

Yomiuri daily apologizes after reporter fabricated Fukushima mayor's statement

<http://mainichi.jp/english/articles/20170315/p2a/00m/0na/010000c>

The Yomiuri Shimbun issued an apology on March 15 after its reporter fabricated a story based on what he claimed was a statement from the mayor of the Fukushima Prefecture town of Naraha, where an evacuation order was lifted in September 2015.

The Yomiuri carried an apology in its March 15 morning edition. The reporter wrote a story that Naraha Mayor Yukiei Matsumoto said he would not promote municipal government officials who are not returning to the town, nor would he raise their wages. The Yomiuri said that the 25-year-old male reporter at its bureau in the Fukushima Prefecture city of Iwaki had followed stories by other newspapers to write his own story without confirming the content of what Mayor Matsumoto had actually said. The reporter also fabricated the Naraha mayor's statement used in the article. The Yomiuri Shimbun Group headquarters said it would take disciplinary measures against the reporter. According to the Yomiuri, the story in question was carried in its evening edition on March 7 as well as in its morning edition in some regions on March 8. The reporter wrote the story by reference to the Naraha mayor's remarks carried by other newspapers in their March 7 morning edition. In the story, the reporter "quoted" the mayor as saying that he made the remarks in question "out of my feelings that municipal government employees should take the initiative to show their stance to return. I would like to hold talks anew on the future." The reporter wrote the statement without interviewing the mayor. In a comment carried in the March 15 morning edition, the Yomiuri said, "Our head office recognizes that it constitutes a grave violation of the ethics of journalism and apologizes to people concerned and our readers." The daily deleted what the reporter initially claimed as the mayor's statement. The reporter was quoted as saying, "As the deadline was approaching, I wrote it in an easy manner without interviewing the mayor."

Toshiba...

March 15, 2017

Toshiba's likely sale of U.S. nuclear unit far from easy

<http://mainichi.jp/english/articles/20170315/p2a/00m/0na/020000c>

Embattled Toshiba Corp. announced on March 14 that it might sell failing U.S. subsidiary Westinghouse Electric Co. LLC in order to tackle a predicted loss of 712.5 billion yen, but the Japanese electronics giant may struggle to find a new buyer.

Furthermore, there is also a real risk that Toshiba might be delisted from the Tokyo Stock Exchange if it fails to release its third-quarter earnings for 2016 by April 11, having already postponed the deadline twice. Looking ahead, there is no doubt that Toshiba faces huge challenges, but in a press conference held at the company's head office in Tokyo on March 14, CEO and President Satoshi Tsunakawa was resolute, stating that "I will strive toward turning this company around."

In trying to reverse Toshiba's fortunes, it seems that Tsunakawa wants to start by detaching the company from its U.S. nuclear subsidiary Westinghouse. Toshiba bought Westinghouse for a relatively bargain price of over 600 billion yen in 2006, but the U.S. company has since incurred massive losses related to nuclear projects in the U.S., owing to factors such as cost overruns and delays as well as stricter safety regulations following the Fukushima nuclear disaster in March 2011.

Although Tsunakawa did not categorically state that Toshiba will sell Westinghouse during the press conference on Tuesday, the implication was there. "We will eliminate the risk of nuclear business projects overseas," the CEO told journalists and analysts.

However, assuming that Toshiba will go ahead and try to sell its failing nuclear unit in the U.S., it will be difficult to find a willing buyer. As a senior executive at Toshiba points out, "No company would buy Westinghouse in its current state." With this harsh reality in mind, it is possible that Westinghouse might have no choice but to file for Chapter 11 bankruptcy protection in the U.S. first, before a new buyer can be sought.

At the press conference on March 14, Tsunakawa was asked about the possibility of Westinghouse filing for bankruptcy, to which the CEO replied, "We are considering various scenarios and we are aiming to eliminate the risk of (the nuclear business project)." His response implies that Toshiba is looking for complete detachment from Westinghouse, and that it is aiming toward the U.S. subsidiary filing for bankruptcy.

However, if this happens, it will not be a straightforward exit for Toshiba. For example, if ongoing nuclear plant construction projects in the U.S. are suddenly discontinued, then Toshiba may be sued for compensation by relevant parties in the U.S.

Additionally, it is also thought that if Westinghouse were to file for bankruptcy, Toshiba would have to pay additional costs in the region of 260 billion yen, as a result of having to guarantee Westinghouse's debts. During the press conference on March 14, the Japanese company's senior executives were repeatedly asked about the potential impact of Westinghouse going bankrupt, but they were somewhat evasive, replying that, "It is difficult to comment on a hypothetical scenario."

However, regardless of what happens regarding Westinghouse, Toshiba did announce on Tuesday that it intends to completely exit the U.S. nuclear sector during fiscal 2017, and also sell off its flagship semi-conductor business unit. Toshiba officials claim optimistically that they can convert the company's operating income from a 410 billion yen deficit (as of March 2017) into a 210 billion yen profit by March 2020, by focusing more on social infrastructure projects and by moving away from the U.S. nuclear sector. However, this will not be easy at all. An economic analyst points out that if Toshiba starts to focus once again on its social infrastructure business such as elevators and railway systems, and withdraws from overseas markets, then it cannot expect to make huge profits. Looking ahead, the expected road forward for Toshiba might appear to be less cluttered than before, but by being more narrow, will it be the right path to take? (By Yuki Ogawa, Business News Department)

March 14, 2017

Toshiba To Speed Up Consideration Of Westinghouse Nuclear Business Sale

<http://www.nucnet.org/all-the-news/2017/03/14/toshiba-to-speed-up-consideration-of-westinghouse-nuclear-business-sale>

14 Mar (NucNet): Japan's Toshiba Corp said on 14 March 2017 it will speed up looking at whether it should sell a majority of its US-based Westinghouse nuclear power business. Toshiba plans to review the positioning of Westinghouse and "aggressively consider strategic options for it", the company said in a regulatory filing. It also said it is aiming for an operating profit of around \$1.8bn (€1.6bn) in the year starting April 2019 –a target that excludes Westinghouse and Toshiba's flagship memory chip business which it has put up for sale. Toshiba said last month it expects to book a loss of \$6.2bn from Westinghouse in the third quarter of fiscal year 2016. The expected write-down was caused largely by an overestimation of projects at CB&I Stone & Webster, a US construction-service company specialised in nuclear power projects, purchased by Westinghouse in January 2016. There have also been reported cost overruns and delays relating to the construction of the Summer nuclear power station in South Carolina and the Vogtle

station in Georgia in the US. There are two AP1000 units under construction at both sites. Toshiba has said it plans to focus on its nuclear fuel and equipment supply businesses and will not provide engineering, procurement and construction contractor services for future overseas projects. Toshiba said it intends to reduce risk at nuclear projects in progress by implementing comprehensive cost reduction measures. The company said it will consider participating in the Moorside new-build project in Cumbria, northwest England, but “without taking on any risk from carrying out actual construction work”.

Low-dose radiation in Fukushima

<https://www.youtube.com/watch?v=c9qb4rjC20Y>

The dangers of low-dose radiation in Fukushima

March 15, 2017

Press conference with Keith Baverstock, Nanako Shimizu et Cécile Anasuma-Brice held at the Foreign Correspondants Club of Japan

Fukushima as softball venue?

March 16, 2017

IOC expected to OK Fukushima stadium for 2020 baseball-softball venue: sources

Kyodo

PYEONGCHANG, SOUTH KOREA – The 2020 Tokyo Olympics organizing committee is expected to win approval from the International Olympic Committee to add the renovated Azuma Stadium in Fukushima Prefecture for the baseball-softball competition, sources said.

The ballpark lies in an area hard hit by the March 2011 earthquake and tsunami. Because the IOC has indicated an understanding of the desire of organizers to assist in rebuilding disaster areas, the proposal will likely be accepted, the sources said Wednesday.

The IOC’s executive board began a two-day meeting on Thursday in Pyeongchang, the site of next year’s Winter Olympics.

On Friday, Yoshiro Mori, the president of the organizing committee, and Toshiro Muto, the CEO, will report on Tokyo’s progress at the meeting.

In December, the IOC declined to add Azuma Stadium to the approved main venue, Yokohama Stadium. But the sources said the executive board is now prepared to accept one stadium as an additional venue.

The committee wants to split the six-team baseball tournament into two groups for the first round, but the World Baseball Softball Confederation wants a full round-robin and one more stadium in the Tokyo metropolitan area to accommodate it.

Although the two parties still appear to be far apart on the competition format, one IOC source said the issues can be debated separately.

“Once the Fukushima venue is approved, we can adjust from there,” the source said.

The executive board is also expected to receive an update on the situation of the 2020 golf venue, Saitama Prefecture’s Kasumigaseki Country Club. The club does not allow women the same membership as men, and the IOC has called the policy unacceptable.

vt and TEPCO must compensate

March 17, 2017

Court orders TEPCO, state to pay evacuees of nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201703170069.html>

THE ASAHI SHIMBUN

MAEBASHI--A court here on March 17 held the government and Tokyo Electric Power Co. accountable for the Fukushima nuclear disaster and ordered them to pay compensation to evacuees.

The ruling by the Maebashi District Court was the first in a series of group lawsuits over the nuclear accident.

The court ordered the government and TEPCO to pay a total of 38.55 million yen (\$340,000) to 62 plaintiffs who evacuated to Gunma Prefecture after the disaster started to unfold at the Fukushima No. 1 nuclear power plant in March 2011.

The group of 137 plaintiffs had demanded 11 million yen each in compensation.

The court accepted most of the plaintiffs’ arguments about how the government and TEPCO failed to prevent the triple meltdown at the plant.

The plaintiffs pointed out that TEPCO in May 2008 obtained an estimate of a tsunami as high as 15.7 meters that could hit the Fukushima No. 1 nuclear plant.

A wave around that height did hit the plant on March 11, 2011, knocking out power and leading to the reactor meltdowns.

The court said if the utility had installed emergency diesel electric generators on higher ground, it could have prevented the nuclear disaster.

The court also said it was possible for the government to predict the tsunami.

In its long-term estimate announced in July 2002, the government said the probability of an earthquake striking in the Japan Trench off the coast of northeastern Japan, including the sea area off the Fukushima No. 1 plant, was “about 20 percent within 30 years.”

The magnitude-9.0 Great East Japan Earthquake spawned the tsunami that devastated coastal areas of the Tohoku region, including the nuclear plant.

If the government had used its regulatory powers to make TEPCO take countermeasures, such as installing seawalls, against such an event, the nuclear disaster could have been avoided, the ruling said.

The government and TEPCO argued that the long-term estimate and the May 2008 tsunami estimate were not established facts.

They also said the tsunami on March 11, 2011, was much larger than anticipated, making it impossible to prevent the nuclear accident.

Another point of dispute was whether TEPCO was paying a reasonable amount in compensation to evacuees based on intermediate guidelines compiled by a government screening panel.

TEPCO currently pays 100,000 yen a month to each person who was living in government-designated evacuation zones around the nuclear plant. The utility has also paid 40,000 yen to 720,000 yen to each person who lived outside the evacuation zones but evacuated "voluntarily."

The plaintiffs argued that guidelines are overly simplistic and do not take into account all the damages the evacuees have suffered.

TEPCO argued that the intermediate guidelines are reasonable. It said that even if voluntary evacuees experienced anxieties or a sense of crisis over radiation exposure, their legal rights have not been infringed upon.

More than 40 percent of the plaintiffs are voluntary evacuees.

About 30 similar lawsuits involving about 12,000 people have been filed throughout the country.

March 17, 2017

Govt.,TEPCO ordered to compensate evacuees

https://www3.nhk.or.jp/nhkworld/en/news/20170317_24/

A court in Japan has found the central government and Tokyo Electric Power Company liable for failing to prevent the 2011 Fukushima nuclear accident.

In a ruling on Friday, the Maebashi District Court in Gunma Prefecture ordered the government and TEPCO to pay more than 38 million yen, or about 335,000 dollars, in damages to a group of 137 evacuees.

The plaintiffs moved to Gunma Prefecture from parts of Fukushima Prefecture, including areas near the damaged Fukushima Daiichi plant.

They demanded 97,000 dollars in compensation each, about 13 million dollars in total, for the loss of their livelihoods and emotional distress.

The tsunami that hit northeastern Japan on March 11th, 2011, led to a triple meltdown at the plant and took out all of its power sources.

Presiding judge Michiko Hara said that both the government and TEPCO could have foreseen the tsunami based on a 2002 report by a government research agency. The report warned of a 20 percent chance of a magnitude-8 class earthquake hitting the region within 30 years.

The judge said TEPCO could easily have taken preventive measures, such as installing emergency generators on higher ground, and that the government could have ordered TEPCO to take such measures.

The case is the first to be decided among a series of suits filed by more than 12,000 people with courts in Tokyo and 17 prefectures.

See video : <https://www3.nhk.or.jp/nhkworld/en/news/videos/20170317173813028/>

Govt, Tepco ordered to pay damages

Court: State and TEPCO must compensate

https://www3.nhk.or.jp/nhkworld/en/news/20170317_23/

A court in Japan has ordered the government and Tokyo Electric Power Company to pay damages to evacuees of the 2011 nuclear accident.

The ruling is the first among similar suits filed across the country to order compensation.

137 evacuees mainly living in Gunma Prefecture northwest of Tokyo, filed the suit. They were seeking damages for emotional distress suffered after losing their livelihoods.

A first: Govt & TEPCO found liable for Fukushima disaster



Lawyers hold banners following a ruling by the Maebashi District Court on a Fukushima nuclear disaster damage suit, in Maebashi, Gunma Prefecture, on March 17, 2017. One of the banners reads, "Partial victory in the suit." (Mainichi)

March 17, 2017

Gov't, TEPCO found liable for Fukushima nuclear disaster for 1st time

<http://mainichi.jp/english/articles/20170317/p2g/00m/0dm/079000c>

MAEBASHI, Japan (Kyodo) -- A district court on Friday found negligence by the central government and plant operator contributed to the Fukushima Daiichi nuclear power plant disaster in March 2011. The Maebashi District Court ruling, which awarded a total of 38.55 million yen (\$340,000) in damages to people who have fled from Fukushima Prefecture, ruled that the government and plant operator were negligent in preparing anti-tsunami measures.

Lawyers for the plaintiffs said it was the first time a Japanese court had recognized such negligence played a part in the worst nuclear catastrophe since Chernobyl.

The ruling was the first among a series of lawsuits filed by people who were forced to leave after three reactors melted down at the plant operated by Tokyo Electric Power Company Holdings Inc., in the days after a massive earthquake and then tsunami struck northeastern Japan on March 11, 2011.

Tokyo Electric Power Co.'s Fukushima No. 1 Nuclear Power Plant is pictured in this photo taken from a Mainichi helicopter on March 10, 2017. (Mainichi)

The court said the nuclear disaster was preventable, saying the state should have used its regulatory powers to make TEPCO take preventive steps.

The 137 plaintiffs, now relocated to Gunma Prefecture and elsewhere, have sought a combined 1.5 billion yen in damages for emotional distress, saying they have lost their livelihoods and faced inconvenience for an extensive period, and the amount they receive under the current state compensation guidelines is not enough.

The plaintiffs comprised 76 people instructed to evacuate and 61 people who fled at their own discretion. Issues during the trial centered on whether the state and TEPCO could have foreseen the tsunami and whether the amount of TEPCO's compensation under state guidelines is sufficient.

The plaintiffs claimed the state and TEPCO could have foreseen tsunami over 10 meters high hitting the plant based on a 2002 government estimate that there was roughly a 20 percent chance of a magnitude-8-level tsunami-triggering earthquake occurring within the next 30 years.

The state and TEPCO argued they could not have foreseen what happened, and even if they had taken measures against tsunami based on the long-term estimate, they could not have avoided the consequence.

See also :

In first, government and Tepco found liable for Fukushima disaster

<http://www.japantimes.co.jp/news/2017/03/17/national/crime-legal/first-government-tepcO-found-liaBle-fukushima-disaster/#.WM1Y0mdFeot>

by Daisuke Kikuchi
Staff Writer

Maebashi, Gunma Pref. – A court in Japan has ruled for the first time that the government and the operator of the crippled Fukushima No. 1 nuclear power plant were responsible for failing to take preventive measures against the March 11, 2011, quake-triggered tsunami that killed scores and forced tens of thousands from their homes.

Friday's stunning ruling by the Maebashi District Court was the first to recognize negligence by the state and Tokyo Electric Power Co. Holdings Inc. It called the massive tsunami predictable and said the major nuclear disaster could have been avoided.

The district court ordered the two to pay damages totaling ¥38.55 million to 62 of 137 plaintiffs from 45 households located near the plant, which suffered a triple meltdown caused by the tsunami, awarding ¥70,000 to ¥3.5 million in compensation to each plaintiff.

The plaintiffs had demanded the state and Tepco pay compensation of ¥11 million each — a total of about ¥1.5 billion — over the loss of local infrastructure and psychological stress they were subjected to after being forced to relocate to unfamiliar surroundings.

Citing a government estimate released in July 2002, the court said in the ruling that "Tepco was capable of foreseeing several months after (the estimate) that a large tsunami posed a risk to the facility and could possibly flood its premises and damage safety equipment, such as the backup power generators."

It pointed out that the state should have ordered Tepco to take bolstered preventive measures, and criticized the utility for prioritizing costs over safety.

Of the plaintiffs, 76 who lived in evacuation zones were forced to move, while another 61 evacuated voluntarily even though their houses were located outside evacuation zones. The ruling was the first of 30 similar class-action suits filed nationwide involving more than 10,000 plaintiffs.

About 80,000 citizens who had lived in Fukushima reportedly left the prefecture after the March 2011 disaster.

"I believe that the ruling saying both the government and Tepco were equally responsible is an important judgment," Katsuyoshi Suzuki, the lead lawyer for the defense said at a news conference following the ruling. "But thinking about the psychological distress (the plaintiffs faced) after being forced to evacuate from their homes, I think the amount is not enough."

Takehiro Matsuta, 38, one of the plaintiffs who evacuated from the city of Koriyama, hailed the ruling, but called the damages "disappointing."

"The ruling was one big step for my family, for those who evacuated from Fukushima to Gunma, and for tens of thousands of earthquake victims nationwide," he said.

But called the payout "disappointing," as his child, who was 3 years old at the time of the nuclear disaster, was not granted compensation. "My wife and I are struggling everyday, but it's my child who suffers the most."

The group of lawyers for the plaintiffs, which have had suits filed since September 2011, claimed that the Fukushima disaster resulted in serious human rights violations by forcing victims to relocate after the crisis caused widespread environmental damage.

The plaintiffs argued that Tepco could have prevented the damage if it had implemented measures, including the building of breakwaters, based on its 2008 tsunami trial calculation that showed waves of over 10 meters could hit the Fukushima No. 1 plant.

Those calculations took into account the 2002 estimate by the government's Headquarters for Earthquake Research Promotion, which concluded that there was a 20 percent chance of a magnitude-8 earthquake rocking areas off Fukushima within 30 years.

However, the government and Tepco have argued that the massive tsunami was unexpected, claiming that there were different opinions among scholars over the long-term evaluation. Both attacked the credibility of the study, calling it unscientific.

The government also objected to the ruling, saying that because it had no authority to force Tepco to take such preventive measures as argued by the plaintiffs, it bore no responsibility.

According to the defense, a number of other class suits are inching closer to rulings, with one in the city of Chiba scheduled for Sept. 22 and another in the city of Fukushima involving 4,000 plaintiffs expected by the year's end.

Information from Kyodo added

Cost-cutting before safety

March 18, 2017

Gov't and TEPCO put money before safety at Fukushima nuclear plant: court ruling

<http://mainichi.jp/english/articles/20170318/p2a/00m/0na/009000c>

From left, the No. 1 to No. 4 reactors at the Fukushima No. 1 Nuclear Power Plant are seen on March 15, 2011, days after three of the reactors melted down. (Photo courtesy of Tokyo Electric Power Co.)

The Maebashi District Court ordered the central government and Tokyo Electric Power Co. (TEPCO) to pay damages in a class action lawsuit brought by Fukushima Prefecture residents who evacuated to Gunma Prefecture and elsewhere due to the Fukushima nuclear disaster. However, the amount was much smaller than what the plaintiffs had demanded, thereby failing to provide nuclear crisis victims the relief they seek.

- **【Related】** Gov't, TEPCO found liable for Fukushima nuclear disaster for 1st time
- **【Related】** Voluntary evacuees granted only small awards in Fukushima nuke disaster damage case
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On March 17, the Maebashi District Court recognized the responsibility of both the central government and TEPCO, operator of the stricken Fukushima No. 1 Nuclear Power Plant. It stated that **TEPCO should have been aware that the Fukushima plant could be hit by tsunami approximately nine years prior to the March 11, 2011 Great East Japan Earthquake, and that the state failed to order TEPCO to take appropriate anti-tsunami measures despite having the regulatory authority to do so.**

"That the court recognized the central government's liability for compensation is very significant," the plaintiffs' lead counsel Katsuyoshi Suzuki said at a rally that was held in Maebashi following the ruling. "It is also extremely important that the court recognized that the state was as culpable as TEPCO."

The plaintiffs argued that TEPCO could have predicted a massive tsunami and taken measures to prevent a nuclear crisis. They also argued that the government was responsible for promoting the development and use of nuclear power. In its ruling, the court harshly criticized TEPCO, taking into account the far-reaching impacts and dangers of the ongoing nuclear disaster. **"The utility must maintain a safety-first policy, but it appears to have placed priority on cost cutting,"** the ruling said.

In July 2002, the government's Headquarters for Earthquake Research Promotion pointed out the possibility that an approximately magnitude 8 earthquake could occur in the Japan Trench, part of which runs along the ocean floor off the coast of Fukushima Prefecture. Based on this "long-term evaluation," TEPCO estimated in 2008 that tsunami with a maximum height of 15.7 meters could hit its Fukushima No. 1 nuclear plant, yet no safety measures based on this estimate were taken.

Instead, TEPCO used a tsunami assessment formula created by the Japan Society of Civil Engineers (JSCE), comprising university professors and power company researchers, which put the height of tsunami that could potentially hit the nuclear plant at a mere 6.1 meters. The tsunami that slammed into the plant on March 11, 2011 hit a maximum height of 15.5 meters.

The Maebashi court took issue with the fact that although TEPCO could have instituted relatively easy anti-tsunami measures, such as relocating its emergency power source to higher ground, it had failed to do so. The Atomic Energy Damage Compensation Law -- which stipulates that the business operator, regardless of whether or not they were negligent, must pay damages in the case of a nuclear disaster -- was applied to reach the decision. However, the court rejected the claim for compensation based on illegal action under the Civil Code.

The ruling also went into detail regarding the government's responsibility. In September 2006, the now defunct Nuclear Safety Committee (NSC) laid down new earthquake-resistance standards, and the government instructed TEPCO and other utilities to assess whether their nuclear power plants met the new criteria. However, in August 2007, TEPCO submitted a mid-term report to the government that did not include any anti-tsunami measures. The Maebashi District Court's ruling pointed out that the government subsequently violated the law by not ordering TEPCO to implement anti-tsunami measures. It also said, "The state was in a position to take the initiative to promote the peaceful use of nuclear energy, and was strongly expected to appropriately exercise its regulatory authority to prevent nuclear disasters." Much of the evidence and issues that were reviewed by the court are the same as those being reviewed in similar class-action lawsuits and the criminal trials of former TEPCO executives, whose pretrial conference procedures are to be held March 29.

The Maebashi ruling "made clear the government's negligence in postponing checks on whether new quake-resilience standards were being met," says attorney Yuichi Kaido, who will represent the victims in the upcoming criminal trial. "That matches our claims. The ruling was groundbreaking, and it will create a tide that will influence other court cases."

Because there are many other similar cases being fought in courts nationwide, it is highly likely that the dispute will continue in an appeal trial in the Tokyo High Court. Chief Cabinet Secretary Yoshihide Suga told a press conference on March 17, "We will look closely at the content of the ruling, and deliberate a response from there," hinting that **the government will look to appeal.**

New chairman for TEPCO?

March 18, 2017

Ex-Hitachi chairman Kawamura tapped to reform Tepco

<http://www.japantimes.co.jp/news/2017/03/18/business/corporate-business/ex-hitachi-chairman-kawamura-tapped-reform-tepco/#.WM1ZV2dFeos>

Jiji — The government has asked former Hitachi Ltd. Chairman Takashi Kawamura, 77, to be the next chairman of Tokyo Electric Power Company Holdings Inc., informed sources said. The government expects Kawamura, who led a quick turnaround at the electronics and machinery conglomerate, **to reform Tepco, which needs to raise an enormous amount of cash** to decommission the reactors at the meltdown-hit Fukushima No. 1 nuclear plant and compensate the nuclear evacuees. Kawamura is likely to accept, the sources said Friday. The government also plans to replace other members of Tepco's board.

Public money may be injected in Toshiba

March 17, 2017

Japan may inject public money to turn around Toshiba: sources

<http://www.japantimes.co.jp/news/2017/03/17/business/corporate-business/japan-may-inject-public-money-turn-around-toshiba-sources/#.WM1ZHmdFeos>

Kyodo

A consortium including the state-backed Innovation Network Corp. of Japan and state-owned Development Bank of Japan is mulling investing in Toshiba Corp.'s memory chip business, sources close to the matter said Friday.

Toshiba Memory Corp., which will be established through the spinoff of its profitable chip business, could be backed by public funds in order to protect the country's key technology and keep the company's memory chip unit out of foreign hands.

Toshiba is the world's second-biggest producer of NAND flash memory chips, after South Korea's Samsung Electronics Co. The chips are used in devices such as smartphones.

The INCJ and DBJ will participate in a bid for Toshiba's chip business, aiming to buy more than one-third of the operation's shares to secure veto power.

Potential Japanese bidders include Toshiba's business partners while a U.S.-Japan consortium may also take part.

"The remaining roughly two-thirds of investment should be done by U.S. investment funds," one source close to the matter said.

The cash-strapped company has said it could sell a majority or even the entire stake of the operation to raise funds to bolster its financial position.

Foreign entities in the United States, Taiwan, South Korea and China are also reportedly interested in the prized chip business.

Toshiba will start selecting a buyer with bids due on March 29.

Industry minister Hiroshige Seko who held separate talks with U.S. Energy Secretary Rick Perry and Commerce Secretary Wilbur Ross in Washington, told reporters Thursday that the two secretaries said that the United States regarded the fiscal stability of Toshiba as extremely important.

Seko said he agreed with them to share information about developments involving Toshiba and its troubled U.S. nuclear affiliate.

Seko met the secretaries two days after Toshiba said that filing for Chapter 11 bankruptcy protection by its nuclear unit Westinghouse is one option, and that it will sell a majority of shares in the U.S. unit in fiscal 2017 starting in April.

Toshiba is reeling from huge losses related to its U.S. nuclear division. In February, the company said it was expecting a loss of ¥712.5 billion in its U.S. nuclear business for the nine months through December on an unaudited basis due to project delays leading to cost overruns.

On Tuesday, Toshiba once again pushed back the release of its financial results, a month after missing the initial deadline due to the need for more time to look into an accounting problem at Westinghouse.

Fukushima disaster: Answers still missing

March 18, 2017 (Mainichi Japan)

Editorial: Ruling on Fukushima nuclear crisis a grave admonition of gov't

<http://mainichi.jp/english/articles/20170318/p2a/00m/0na/008000c>

In a class action suit filed by residents of Fukushima Prefecture who evacuated to Gunma Prefecture and elsewhere due to the ongoing Fukushima No. 1 nuclear plant disaster, the Maebashi District Court ordered both the plant operator, Tokyo Electric Power Co. (TEPCO), and the central government to pay 62 residents a total of 38.55 million yen. It marked the first time that the judiciary recognized the state's responsibility for negligence in the nuclear disaster.

- **【Related】** Gov't, TEPCO found liable for Fukushima nuclear disaster for 1st time
- **【Related】** Gov't and TEPCO put money before safety at Fukushima nuclear plant: court ruling
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- **【Related】** Fukushima nuke disaster evacuees disappointed by court's compensation award

The court ruling should be seen as admonition from the judiciary that the state has a grave responsibility over its nuclear power policy.

The main focus of the case was on whether TEPCO had been able to predict the size of the tsunami that struck the plant on March 11, 2011, and whether the state should have exercised its regulatory authority to make TEPCO implement necessary safety measures.

The plaintiffs focused on a long-term assessment on earthquakes, which the government released in 2002, as evidence to show that TEPCO had been able to predict a tsunami like the one that hit the Fukushima plant. The report stated that there was about a 20 percent chance that an earthquake of around magnitude 8 would occur off the coast between the northern Sanriku region and the Boso Peninsula within the next 30 years.

Based on this report, TEPCO predicted in 2008 that tsunami with a maximum height of 15.7 meters could hit the Fukushima No. 1 plant. The actual tsunami that hit the nuclear power station on March 11, 2011,

however, was 15.5 meters tall. The plaintiffs argued that if TEPCO had taken the appropriate anti-tsunami measures based on the long-term assessment and other specific forecasts, the nuclear crisis could have been avoided.

The Maebashi District Court ruled almost entirely in favor of the plaintiffs, saying that TEPCO neglected to take measures despite having been able to predict that such a large tsunami could hit the nuclear plant, putting cost-cutting ahead of safety.

The court also handed down a similar decision regarding the culpability of the central government. Nuclear disasters cause irreparable damage over a large area. The court ruled that the fact that the central government did not exercise its regulatory authority even though TEPCO's anti-tsunami measures were insufficient was extremely unreasonable when considering the import of the Nuclear Reactor Regulation Law and other rules. It is notable, also, that the court ruled that the state's responsibility was on par with that of TEPCO's, and ordered the state to pay the plaintiffs the same amount in damages as the utility. At the same time, however, the ruling was parsimonious in the compensation amount that it ordered be paid to the individual plaintiffs. Because the court deducted compensation money that TEPCO has already paid, the amount it approved was far below what the plaintiffs had demanded.

The plaintiffs had demanded 11 million yen per person -- including for those who had evacuated voluntarily -- citing loss of their hometowns and jobs, and grave emotional distress. For many of the plaintiffs, therefore, the ruling has likely come as a disappointment.

Around 30 similar lawsuits have been filed nationwide, by around 12,000 plaintiffs who have evacuated from Fukushima Prefecture. Rulings have not yet been handed down in any of those cases.

Why wasn't the disaster prevented? Who is responsible? Much of the public is still seeking answers to these questions.

However, **the nuclear disaster investigative committees of both the government and the Diet have disbanded, bringing their respective probes into causes of the crisis to a halt.** The lessons from the ongoing disaster have yet to be learned in their entirety. It is because a single nuclear incident has grave and far-reaching consequences that an examination of its cause is so important.

Tomikawa: Trying to understand Fukushima

March 18, 2017

Asking the tough questions about Fukushima

<http://www.japantimes.co.jp/news/2017/03/18/national/media-national/asking-tough-questions-fukushima/#.WM1Xo2dFeos>

In January, regional newspaper Fukushima Minpo interviewed Yosuke Takagi, state minister of economy, trade and industry. While talking about reconstruction plans for areas near the crippled Fukushima No. 1 nuclear power plant, Takagi mentioned resurrecting Dash-mura (Dash Village), a farm created from scratch by boy band Tokio for its Nippon TV series "The Tetsuwan Dash."

The location of Dash-mura was always secret, lest Tokio's fans descend on the project and destroy its rustic purity. But following the reactor accident caused by the Great East Japan Earthquake, it was revealed that the farm was in an area declared off-limits due to its proximity to the plant. It was promptly abandoned.

A different news outlet, Fukushima Minyu, clarified that the revival of Dash-mura is “nothing more than a personal idea of Takagi’s,” but that he intends to discuss it with related parties. An 80-year-old farmer who once worked with Tokio on the project told Minyu that bringing back the farm would be a great PR boost for the area’s agriculture, which is obviously Takagi’s aim. The show’s producer, however, after hearing of Takagi’s comment, tweeted that he knew nothing about the news, adding cryptically that “Dash-mura is no one’s thing.”

The Huffington Post called the Ministry of Economy, Trade and Industry to ask if it had any intention of reviving Dash-mura. A representative only “confirmed” that Takagi had “made such a comment” and said METI had no “definite plan” to that end but might “study it.”

Nevertheless, the idea fits in with the government’s goal of getting former residents to move back to the area. Last week, authorities announced they would further reduce the evacuation zone at the end of the month, which means it will have shrunk by 70 percent since April 2014. The concern is that few people want to return. Some have already made lives for themselves elsewhere and see a lack of opportunity in their old communities.

Many also remain suspicious of the government’s assurances that radioactivity has dropped to a safe level. There is still debate among experts as to whether or not the radiation in the area is dangerous. The government says that the problems caused by the accident are now “under control,” and affected residents can soon go back to their old lives.

One media outlet who has challenged this assumption is TV Asahi’s “Hodo Station.” On March 9, the nightly news show sent its main announcer, Yuta Tomikawa, to Iitate, a village located about 40 km from the crippled nuclear facility. All 6,000 residents were eventually evacuated after the accident.

Standing in front of rows of black plastic bags, Tomikawa reported that, according to the government, decontamination efforts have been a success. A safe annual radiation level is 1 millisievert, but a local dairy farmer told Tomikawa that his own readings showed five times that level, adding that 70 percent of Iitate is wooded and forest land had not been decontaminated yet.

Moreover, the government is lifting the evacuation order for any areas where annual radiation levels are “no more than” 20 mSv. The International Commission on Radiological Protection told the government that once the situation had stabilized in the affected areas, people could return if radiation dropped to between 1 and 20 mSv, but the lower the better. Exposure to 20 mSv for a short period may not be a problem, but it could have harmful effects in the long run.

Tomikawa did not say that people who returned to Iitate would be in danger, but he did imply that the government is manipulating numbers in an attempt to persuade evacuees to return to their homes.

The web magazine Litera wrote that TV Asahi is the only mainstream media outlet to question the government line in this regard. Actually, Nippon TV did something similar, albeit indirectly. Last month, it rebroadcasted an episode of its “NNN Document” series about the married *manzai* (stand-up comedy) duo Oshidori Mako-Ken’s efforts to come to terms with the Fukushima meltdowns and their aftermath.

The couple belongs to the large Osaka-based entertainment company Yoshimoto Kogyo, but ever since the disaster Mako has attended about 500 related news conferences, making a nuisance of herself by plying Tokyo Electric Power Company Holdings employees and government officials with questions the mainstream media don’t usually ask.

In order to gain access to the news conferences, she offered stories to the weekly magazine Spa! Her editor there told Nippon TV that Mako is now respected or resented by a lot of full-time journalists, partly because she’s a *geinojin* (entertainer) who has proved her mettle as a reporter, but mainly because of her hard-line queries, which put her interlocutors on the spot.

Following the disaster, Mako became suspicious when she saw people fleeing Tokyo in large numbers but heard nothing about it on the news. In order to make sense of the situation she'd watch unfiltered news conferences about the disaster on the internet. She realized only independent reporters asked tough questions, so she started attending them herself as a proxy for average people who didn't understand what was going on. The more officials obfuscated, the more she studied.

She's now recognized by some foreign press as one of the most informed persons on the subject — she even received a letter of encouragement from Pope Francis — and yet she's shunned by the Japanese press. Nevertheless, she has dedicated followers, including workers cleaning up the reactor who often feed her questions to ask of officials. She's won awards for her work, but from citizens groups, not media groups.

Nowadays, Mako and Ken do more free lectures on Fukushima No. 1 than they do comedy shows. One of their main themes is that media reports tend to confuse the public rather than inform them, but that's really the fault of the government, which would like nothing better than for people to feel as if nothing ever happened.

Lies?

March 20, 2017

Firms rebut TV report saying Japanese food from banned areas sold in China

<http://mainichi.jp/english/articles/20170320/p2a/00m/0na/006000c>

A China Central Television (CCTV) report stating that banned Japanese food products from eastern Japan were being sold in China has stirred controversy, as it contained inaccuracies.

Supporters of Japanese products in China have criticized the recent report, saying that the safety of Chinese food products is more of an issue.

In the wake of the disaster at the Fukushima No. 1 Nuclear Power Plant in 2011, the Chinese government banned the import of Japanese food items produced in 10 Japanese prefectures including Fukushima, Miyagi, Ibaraki, Chiba and Tokyo. On Jan. 15 this year, CCTV reported that food products from "contaminated regions" were being sold with altered production area labels by retailers including Japanese-operated Muji and Aeon.

However, according to Muji operator Ryohin Keikaku Co., tea and sweets appearing in the report were produced in Fukui Prefecture and Osaka Prefecture, respectively. The company said that the products listed the address of the retailer's Tokyo headquarters and that it was possible CCTV had mistakenly assumed that Tokyo was where the products were manufactured.

Aeon's Chinese operator temporarily removed products for an inspection, but on March 17 it released a statement saying that the packs of rice in question were not from a banned area.

Inspection authorities in Beijing and Shanghai announced that they had not found any products from banned areas. One official with a Japan-related business said the CCTV report "gives the strong impression that it is conveying the Chinese government's position." It has been conjectured that as the popularity of Japan grows, the Chinese government wants to draw consumers back to domestic consumption.

The Japanese government has made repeated requests for China to lift its import ban.

ASTRID and security collaboration

March 21, 2017

Japan, France confirm nuclear and security cooperation

<http://mainichi.jp/english/articles/20170321/p2g/00m/0dm/030000c>

PARIS (Kyodo) -- Japanese Prime Minister Shinzo Abe and French President Francois Hollande on Monday confirmed bilateral cooperation in the research of the commercial use of nuclear power as well as in security.

The two countries agreed on joint research on a French-led fast reactor development project called ASTRID, an acronym for Advanced Sodium Technological Reactor for Industrial Demonstration.

As the leaders met, Japanese industry minister Hiroshige Seko, who is accompanying Abe, and French environment minister Segolene Royal signed a nuclear power cooperation agreement, stating that they will work together on nuclear fuel cycle and fast reactor development.

France aims to start the operation of ASTRID in the 2030s.

Abe and Hollande also attended a signing ceremony on a deal in which **Mitsubishi Heavy Industries Ltd. and Japan Nuclear Fuel Ltd. will each acquire a 5 percent stake in a nuclear fuel reprocessing joint venture to be established by French atomic energy company Areva.**

In the sphere of security, Abe revealed to reporters after the talks with Hollande that **Japan's Maritime Self-Defense Forces will jointly conduct naval exercises with France, the United States and Britain.** The Japanese premier welcomed the "significant" agreement on the exercises to be held in the Asia-Pacific region, including off Guam in the Western Pacific, apparently in view of China's expansionary maritime activities.

The Japanese leader said he and Hollande shared a view that the Indian and Pacific oceans are international public goods and need to be maintained as free and open areas.

Abe said a French training squadron, including a helicopter carrier, will visit Japan in late April.

On regional issues, Abe strongly condemned North Korea's nuclear and missile programs, while Hollande expressed Paris' support for Tokyo on the matter.

It was the 10th and final meeting between Abe and Hollande as the latter is not running in France's upcoming presidential election. The first round of the election is in April followed by a potential runoff vote in May.

As for economic issues, Abe and Hollande agreed on the importance of promoting free trade amid the threat of rising protectionism across the world following the inauguration of U.S. President Donald Trump. They affirmed cooperation for the early signing of the free trade agreement between Japan and the European Union.

Abe expressed Japan's support for "a strong Europe" to be maintained even after Britain's forthcoming exit from the bloc.

"Japan and Europe must fly the flag of free trade high, together with the United States," Abe said.

Hollande said the Japan-France relationship can be further strengthened.

France's election is one of a series in Europe this year in which public unease about immigration and the functions of the European Union have fuelled speculation voters could pick populist candidates over the current political establishment.

Abe arrived in Paris on Monday after talks with German Chancellor Angela Merkel in Hanover. He is scheduled to meet European Council President Donald Tusk and Italian Prime Minister Paolo Gentiloni before returning to Japan on Wednesday

Nukes in crisis

March 14, 2017

Terminal Decline? Fukushima and the Deepening Crisis of Nuclear Energy

<http://www.counterpunch.org/2017/03/14/terminal-decline-fukushima-and-the-deepening-crisis-of-nuclear-energy/>

by Jim Green

Saturday March 11 marks the sixth anniversary of the triple-disaster in north-east Japan – the earthquake, tsunami and the Fukushima nuclear disaster.

And the news is not good. Scientists are wondering how on earth to stabilise and decontaminate the failed reactors awash with molten nuclear fuel, which are fast turning into graveyards for the radiation-hardened robots sent in to investigate them.

The Japanese government's estimate of Fukushima compensation and clean-up costs has doubled and doubled again and now stands at ¥21.5 trillion (US\$187bn; €177bn).

Indirect costs – such as fuel import costs, and losses to agricultural, fishing and tourism industries – will likely exceed that figure.

Kendra Ulrich from Greenpeace Japan notes in a new report that *“for those who were impacted by the worst nuclear disaster in a generation, the crisis is far from over. And it is women and children that have borne the brunt of human rights violations resulting from it, both in the immediate aftermath and as a result of the Japan government's nuclear resettlement policy.”*

Radiation biologist Ian Fairlie summarises the health impacts from the Fukushima disaster: *“In sum, the health toll from the Fukushima nuclear disaster is horrendous. At the minimum:*

- + Over 160,000 people were evacuated most of them permanently.
- + Many cases of post-trauma stress disorder (PTSD), depression, and anxiety disorders arising from the evacuations.
- + About 12,000 workers exposed to high levels of radiation, some up to 250 mSv
- + An estimated 5,000 fatal cancers from radiation exposures in future.
- + Plus similar (unquantified) numbers of radiogenic strokes, CVS diseases and hereditary diseases.
- + Between 2011 and 2015, about 2,000 deaths from radiation-related evacuations due to ill-health and suicides.
- + An, as yet, unquantified number of thyroid cancers.
- + An increased infant mortality rate in 2012 and a decreased number of live births in December 2011.”

Dr Fairlie's report was written in August 2015 but it remains accurate. More than half of the 164,000 evacuees from the nuclear disaster remain dislocated. Efforts to restore community life in numerous

towns are failing. Local authorities said in January that only 13% of the evacuees in five municipalities in Fukushima Prefecture have returned home after evacuation orders were lifted.

As for Japan's long-hyped 'nuclear restart': just three power reactors are operating in Japan; before the Fukushima disaster, the number topped 50.

A nuclear power 'crisis'?

Nuclear advocates and lobbyists elsewhere are increasingly talking about the 'crisis' facing nuclear power – but they don't have the myriad impacts of the Fukushima disaster in mind: they're more concerned about catastrophic cost overruns with reactor projects in Europe and the US.

Michael Shellenberger from the Breakthrough Institute, a US-based pro-nuclear lobby group, has recently written articles about nuclear power's "rapidly accelerating crisis" and the "crisis that threatens the death of nuclear energy in the West".

A recent article from the Breakthrough Institute and the like-minded Third Way lobby group discusses "the crisis that the nuclear industry is presently facing in developed countries".

'Environmental Progress', another US pro-nuclear lobby group connected to Shellenberger, has a webpage dedicated to the nuclear power crisis. Among other things, it states that 151 gigawatts (GW) of worldwide nuclear power capacity (38% of the total) could be lost by 2030 (compared to 33 GW of retirements over the past decade), and over half of the ageing US reactor fleet is at risk of closure by 2030.

As a worldwide generalisation, nuclear power can't be said to be in crisis. To take the extreme example, China's nuclear power program isn't in crisis – it is moving ahead at pace. Russia's nuclear power program, to give one more example, is moving ahead at snail's pace, but isn't in crisis.

Nonetheless, large parts of the worldwide nuclear industry are in deep trouble. The July 2016 *World Nuclear Industry Status Report* provides an overview of the troubled status of nuclear power:

- + nuclear power's share of the worldwide electricity generation is 10.7%, well down from historic peak of 17.6% in 1996;

- + nuclear power generation in 2015 was 8.2% below the historic peak in 2006; and

- + from 2000 to 2015, 646 gigawatts (GW) of wind and solar capacity (combined) were added worldwide while nuclear capacity (not including idle reactors in Japan) fell by 8 GW.

US nuclear industry in crisis

The US nuclear industry is in crisis, with a very old reactor fleet – 44 of its 99 reactors have been operating for 40 years or more – and no likelihood of new reactors for the foreseeable future other than four already under construction.

Last September, *Associated Press* described one of the industry's many humiliations: "*After spending more than 40 years and \$5 billion on an unfinished nuclear power plant in northeastern Alabama, the nation's largest federal utility is preparing to sell the property at a fraction of its cost.*"

"The Tennessee Valley Authority has set a minimum bid of \$36.4 million for its Bellefonte Nuclear Plant and the 1,600 surrounding acres of waterfront property on the Tennessee River. The buyer gets two unfinished nuclear reactors, transmission lines, office and warehouse buildings, eight miles of roads, a 1,000-space parking lot and more."

Japanese conglomerate Toshiba and its US-based nuclear subsidiary Westinghouse are in crisis because of massive cost overruns building four AP1000 reactors in the US – the combined cost overruns amount to about US\$11.2bn (€10.7bn) and counting.

Toshiba said in February 2017 that it expects to book a US\$6.3bn (€5.9bn) writedown on Westinghouse, on top of a US\$2.3bn (€2.1bn) writedown in April 2016. The losses exceed the US\$5.4bn (€5.1bn) Toshiba paid when it bought a majority stake in Westinghouse in 2006.

Toshiba says it would likely sell Westinghouse if that was an option – but there is no prospect of a buyer. Westinghouse is, as *Bloomberg* noted, “too much of a mess” to sell. And since that isn’t an option, Toshiba must sell profitable businesses instead to stave off bankruptcy.

Toshiba is seeking legal advice as to whether Westinghouse should file for Chapter 11 bankruptcy. But even under a Chapter 11 filing, *Reuters* reported, “*Toshiba could still be on the hook for up to \$7 billion in contingent liabilities as it has guaranteed Westinghouse’s contractual commitments*” for the US AP1000 reactors.

The Toshiba/Westinghouse crisis is creating a ripple effect. A few examples:

- + the NuGen (Toshiba/Engie) consortium has acknowledged that the plan for three AP1000 reactors at Moorside in the UK faces a “significant funding gap” and both partners reportedly want out of the project;
- + Georgia Power, 45.7% owner of the troubled Vogtle AP1000 project, recently suspended plans for another nuclear plant in Georgia; and
- + Toshiba recently announced its intention to pull out of the plan for two Advanced Boiling Water Reactors at the South Texas Plant, having booked writedowns totaling US\$638m (€605m) on the project in previous years.

The French nuclear industry is in crisis

The French nuclear industry is in its “worst situation ever”, former EDF director Gérard Magnin said in November 2016. The French government is selling assets so it can prop up its heavily indebted nuclear utilities Areva and EDF.

The current taxpayer-funded rescue of the nuclear power industry may cost the French state as much as €10bn (US\$10.5bn), *Reuters* reported in January, and in addition to its “*dire financial state, Areva is beset by technical, regulatory and legal problems.*”

France has 58 operable reactors and just one under construction. French EPR reactors under construction in France and Finland are three times over budget – the combined cost overruns for the two reactors amount to about €12.7bn (US\$13.4bn).

Bloomberg noted in April 2015 that Areva’s EPR export ambitions are “in tatters”. Now Areva itself is in tatters and is in the process of a government-led restructure and another taxpayer-funded bailout.

On March 1, Areva posted a €665m (US\$700m) net loss for 2016. Losses in the preceding five years exceeded €10bn (US\$10.5 bn). A large majority of a €5bn (US\$5.3bn) recapitalisation of Areva scheduled for June 2017 will come from French taxpayers.

On February 14, EDF released its financial figures for 2016: earnings fell 6.7%, revenue declined 5.1%, net income excluding non-recurring items fell 15%, and EDF’s debt remained steady at €37.4bn (US\$39.4bn). All that EDF chief executive Jean-Bernard Levy could offer was the hope that EDF would “hit the bottom of the cycle” in 2017 and rebound next year.

EDF plans to sell €10bn (US\$10.5 bn) of assets by 2020 to rein in its debt, and to sack up to 7,000 staff.

The French government provided EDF with €3bn (US\$3.2bn) in extra capital in 2016 and will contribute €3bn towards a €4bn (US\$4.2bn) capital raising this year.

On March 8, shares in EDF hit an all-time low a day after the €4bn capital raising was launched; the stock price fell to €7.78, less than one-tenth of the €86.45 high a decade ago.

Costs of between €50bn and €100bn (US\$53-106bn) will need to be spent by 2030 to meet new safety requirements for reactors in France and to extend their operating lives beyond 40 years.

EDF has set aside €23bn (US\$24.3bn) to cover reactor decommissioning and waste management costs in France – less than half of the €54bn (US\$57bn) that EDF estimates will be required. A recent report by the French National Assembly’s Commission for Sustainable Development and Regional Development

concluded that there is “*obvious under-provisioning*” and that decommissioning and waste management will likely take longer, be more challenging and cost much more than EDF anticipates.

EDF is being forced to take over parts of its struggling sibling Areva’s operations – a fate you wouldn’t wish on your worst enemy. And just when it seemed that things couldn’t get any worse for EDF, a fire took hold in the turbine room of one of the Flamanville reactors on February 9 and the reactor will likely be offline until late March at an estimated cost of roughly €1.2m (US\$1.27m) per day.

Half of the world’s nuclear industry is in crisis and/or shutting down

Combined, the crisis-ridden US, French and Japanese nuclear industries account for 45% of the world’s ‘operable’ nuclear reactors according to the World Nuclear Association’s database, and they accounted for 50% of nuclear power generation in 2015 (and 57% in 2010).

Countries with crisis-ridden nuclear programs or phase-out policies (e.g. Germany, Belgium, and Taiwan) account for about half of the world’s operable reactors and more than half of worldwide nuclear power generation.

The Era of Nuclear Decommissioning (END)

The ageing of the global reactor fleet isn’t yet a crisis for the industry, but it is heading that way.

The assessment by the ‘Environmental Progress’ lobby group that 151 GW of worldwide nuclear power capacity could be shut down by 2030 is consistent with figures from the World Nuclear Association (132 reactor shut-downs by 2035), the International Energy Agency (almost 200 shut-downs between 2014 and 2040) and *Nuclear Energy Insider* (up to 200 shut-downs in the next two decades). It looks increasingly unlikely that new reactors will match shut-downs.

Perhaps the best characterisation of the global nuclear industry is that a new era is approaching – the Era of Nuclear Decommissioning (END). Nuclear power’s END will entail:

- + a slow decline in the number of operating reactors (unless growth in China can match the decline elsewhere);
- + an increasingly unreliable and accident-prone reactor fleet as ageing sets in;
- + countless battles over lifespan extensions for ageing reactors;
- + an internationalisation of anti-nuclear opposition as neighbouring countries object to the continued operation of ageing reactors (international opposition to Belgium’s reactors is a case in point);
- + a broadening of anti-nuclear opposition as citizens are increasingly supported by local, regional and national governments opposed to reactors in neighbouring countries (again Belgium is a case in point, as is Lithuanian opposition to reactors under construction in Belarus);
- + many battles over the nature and timing of decommissioning operations;
- + many battles over taxpayer bailouts for companies and utilities that haven’t set aside adequate funding for decommissioning;
- + more battles over proposals to impose nuclear waste repositories on unwilling or divided communities; and
- + battles over taxpayer bailouts for companies and utilities that haven’t set aside adequate funding for nuclear waste disposal.

As discussed in a previous article in *The Ecologist*, nuclear power is likely to enjoy a small, short-lived upswing in the next couple of years as reactors ordered in the few years before the Fukushima disaster come online. Beyond that, the Era of Nuclear Decommissioning sets in, characterised by escalating battles – and escalating sticker-shock – over lifespan extensions, decommissioning and nuclear waste management.

In those circumstances, it will become even more difficult than it currently is for the industry to pursue new reactor projects. A positive feedback loop could take hold and then the industry will be well and truly in crisis.

Nuclear lobbyists debate possible solutions to the nuclear power crisis

Michael Shellenberger from the Breakthrough Institute argues that a lack of standardisation and scaling partly explains the *“crisis that threatens the death of nuclear energy in the West”*. The constant switching of designs deprives the people who build, operate and regulate nuclear plants of the experience they need to become more efficient.

Shellenberger further argues that there is too much focus on machines, too little on human factors:

“Areva, Toshiba-Westinghouse and others claimed their new designs would be safer and thus, at least eventually, cheaper, but there were always strong reasons to doubt such claims. First, what is proven to make nuclear plants safer is experience, not new designs. ...

“In fact, new designs risk depriving managers and workers the experience they need to operate plants more safely, just as it deprives construction companies the experience they need to build plants more rapidly.”

Shellenberger has a three-point rescue plan:

1/ ‘Consolidate or Die’: *“If nuclear is going to survive in the West, it needs a single, large firm – the equivalent of a Boeing or Airbus – to compete against the Koreans, Chinese and Russians.”*

2/ ‘Standardize or Die’: He draws attention to the *“astonishing”* heterogeneity of planned reactors in the UK and says the UK *“should scrap all existing plans and start from a blank piece of paper”*, that all new plants should be of the same design and *“the criteria for choosing the design should emphasize experience in construction and operation, since that is the key factor for lowering costs.”*

3/ ‘Scale or Die’: Nations *“must work together to develop a long-term plan for new nuclear plant construction to achieve economies of scale”*, and governments *“should invest directly or provide low-cost loans.”*

Wrong lessons

Josh Freed and Todd Allen from pro-nuclear lobby group Third Way, and Ted Nordhaus and Jessica Lovering from the Breakthrough Institute, argue that Shellenberger draws the wrong lessons from Toshiba’s recent losses and from nuclear power’s *“longer-term struggles”* in developed economies.

They argue that *“too little innovation, not too much, is the reason that the industry is on life support in the United States and other developed economies”*. They state that:

+ The Westinghouse AP1000 represents a fairly straightforward evolution in light-water reactor design, not a radical departure as Shellenberger claims.

+ Standardisation is important but it is not a panacea. Standardisation and building multiple reactors on the same site has limited cost escalation, not brought costs down.

+ Most of the causes of rising cost and construction delays associated with new nuclear builds in the US are attributable to the 30-year hiatus in nuclear construction, not the novelty of the AP1000 design.

+ Reasonable regulatory reform will not dramatically reduce the cost of new light-water reactors, as Shellenberger suggests.

They write this obituary for large light-water reactors: *“If there is one central lesson to be learned from the delays and cost overruns that have plagued recent builds in the US and Europe, it is that the era of building large fleets of light-water reactors is over in much of the developed world.”*

“From a climate and clean energy perspective, it is essential that we keep existing reactors online as long as possible. But slow demand growth in developed world markets makes ten billion dollar, sixty-year investments in future electricity demand a poor bet for utilities, investors, and ratepayers.”

A radical break

The four Third Way / Breakthrough Institute authors conclude that *“a radical break from the present light-water regime ... will be necessary to revive the nuclear industry”*. Exactly what that means, the authors said, would be the subject of a follow-up article.

So readers were left hanging – will nuclear power be saved by failed fast-reactor technology, or failed high-temperature gas-cooled reactors including failed pebble-bed reactors, or by thorium pipe-dreams or fusion pipe-dreams or molten salt reactor pipe-dreams or small modular reactor pipe-dreams? Perhaps we’ve been too quick to write off cold fusion?

The answers came in a follow-up article on February 28. The four authors want a thousand flowers to bloom, a bottom-up R&D-led nuclear recovery as opposed to top-down, state-led innovation.

They don’t just want a new reactor type (or types), they have much greater ambitions for innovation in *“nuclear technology, business models, and the underlying structure of the sector”* and they note that *“a radical break from the light water regime that would enable this sort of innovation is not a small undertaking and will require a major reorganization of the nuclear sector.”*

To the extent that the four authors want to tear down the existing nuclear industry and replace it with a new one, they share some common ground with nuclear critics who want to tear down the existing nuclear industry and not replace it with a new one.

Shellenberger also shares some common ground with nuclear critics: he thinks the UK should scrap all existing plans for new reactors and *“start from a blank piece of paper”*. But nuclear critics think the UK should scrap all existing plans for new reactors and not start from a blank piece of paper.

Small is beautiful?

The four Third Way / Breakthrough Institute authors argue that nuclear power must become substantially cheaper – thus ruling out large conventional reactors *“operated at high atmospheric pressures, requiring enormous containment structures, multiply redundant back-up cooling systems, and water cooling towers and ponds, which account for much of the cost associated with building light-water reactors.”*

Substantial cost reductions will not be possible *“so long as nuclear reactors must be constructed on site one gigawatt at a time. ... At 10 MW or 100 MW, by contrast, there is ample opportunity for learning by doing and economies of multiples for several reactor classes and designs, even in the absence of rapid demand growth or geopolitical imperatives.”*

Other than their promotion of small reactors and their rejection of large ones, the four authors are non-specific about their preferred reactor types. Any number of small-reactor concepts have been proposed. Small modular reactors (SMRs) have been the subject of much discussion and even more hype. The bottom line is that there isn’t the slightest chance that they will fulfil the ambition of making nuclear power *“substantially cheaper”* unless and until a manufacturing supply chain is established at vast expense.

And even then, it’s doubtful whether the power would be cheaper and highly unlikely that it would be substantially cheaper. After all, economics has driven the long-term drift towards larger reactors. As things stand, no country, company or utility has any intention of betting billions on building an SMR supply chain. The prevailing scepticism is evident in a February 2017 Lloyd’s Register report based on *“insights and opinions of leaders across the sector”* and the views of almost 600 professionals and experts from utilities, distributors, operators and equipment manufacturers.

The Lloyd’s Register report states that the potential contribution of SMRs *“is unclear at this stage, although its impact will most likely apply to smaller grids and isolated markets.”* Respondents predicted that SMRs have a *“low likelihood of eventual take-up, and will have a minimal impact when they do arrive”*.

The Third Way / Breakthrough Institute authors are promoting small reactors because of the spectacular failure of a number of large reactor projects, but that's hardly a recipe for success. An analysis of SMRs in the *Bulletin of the Atomic Scientists* sums up the problems:

"Without a clear-cut case for their advantages, it seems that small nuclear modular reactors are a solution looking for a problem. Of course in the world of digital innovation, this kind of upside-down relationship between solution and problem is pretty normal. Smart phones, Twitter, and high-definition television all began as solutions looking for problems.

"In the realm of nuclear technology, however, the enormous expense required to launch a new model as well as the built-in dangers of nuclear fission require a more straightforward relationship between problem and solution. Small modular nuclear reactors may be attractive, but they will not, in themselves, offer satisfactory solutions to the most pressing problems of nuclear energy: high cost, safety, and weapons proliferation."

Small or large reactors, consolidation or innovation, Generation 2/3/4 reactors ... it's not clear that the nuclear industry will be able to recover – however it responds to its current crisis.

Join the debate on Facebook

Dr Jim Green is the national nuclear campaigner with Friends of the Earth Australia and editor of the *Nuclear Monitor* newsletter, where a longer version of this article was originally published.

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Japan's nuclear village "in shock"

March 20, 2017

Japan court shocks nuclear industry with liability ruling

by Shaun Burnie, *Asia Times*, March 20, 2017

<http://www.atimes.com/article/japan-court-shocks-nuclear-industry-liability-ruling/>

Japan's atomic power establishment is in shock following the court ruling on Friday that found the state and the operator of the Fukushima nuclear plant liable for failing to take preventive measures against the tsunami that crippled the facility.

The reason for the shock is the ruling has wide-ranging implications for Japan's entire nuclear power industry and the efforts to restart reactors throughout the country.

Judges in the Maebashi District Court in Gunma prefecture ruled that Tokyo Electric Power Co. (Tepco) and the government were aware of the earthquake and tsunami risks to the Fukushima Daiichi plant prior to the 2011 triple reactor meltdown, but failed to take preventative measures.

The decision was welcomed by the 137 Fukushima citizens who filed the lawsuit in 2014. What needs to be remembered is a further 28 civil and criminal lawsuits in 18 prefectures across Japan are pending. They involve more than 10,000 citizens and include a shareholder claim seeking compensation of 5.5 trillion yen (US\$49 billion).

Tepco is already a de facto bankrupt, has been effectively nationalized and now faces the unprecedented challenges of how to remove three melted reactors at the Fukushima plant.

Six years after the disaster it still faces unanswered questions about the precise causes of the accident, questions that have generated public opposition to Tepco restarting reactors at another plant in Kashiwazaki-Kariwa in Niigata prefecture, on the opposite coastline to Fukushima.

Beside the court ruling being yet another blow to Tepco's efforts to recover from the Fukushima nuclear disaster, the judgement will be highly disruptive to plans by the government and utilities to restart nuclear reactors in Japan.

In the court ruling, the judges found that science-based evidence of major risks to the nuclear plant was "foreseen" but ignored and not acted upon by Japan's government and Tepco.

The evidence included a 2002 government assessment that concluded there was a 20% risk of a magnitude 8 or greater earthquake off the coast of northeastern Japan within 30 years. This includes the sea bed area off the Fukushima Daiichi plant.

Further, the plaintiffs cited a 2008 internal Tepco report 'Tsunami Measures Unavoidable' which included the likelihood of a potential 15.7 meter tsunami hitting the Fukushima nuclear site.

The court ruled that if the government had used its regulatory powers to make Tepco take countermeasures, such as installing seawalls, against such an event, the nuclear disaster could have been avoided.

While the judges in Gunma prefecture have concluded that ignoring evidence of risk can have devastating consequences, that does not seem to be the approach of the nuclear utilities or the Nuclear Regulation Authority (NRA).

Over the last four years, the NRA has demonstrated a tendency to ignore evidence of risks to nuclear plants that have made applications to restart reactors shut down after the Fukushima disaster, and to bend to the demands of the nuclear power companies and the government.

A total of 26 reactors have applied for NRA review, of which seven have passed and four more will likely be approved this year.

In each case, the NRA has failed to apply a robust approach to assessing risks. It has chosen to screen out seismic faults that threaten nuclear plants, failed to follow recommendations from international safety guidelines, and accepted selective evidence on volcanic risks.

In the case of the three forty-year old reactors at Takahama and Mihama, the NRA approved the reactors, while granting the utility an exemption from demonstrating that the reactors primary circuit can meet the 2013 post Fukushima revised safety guidelines, until a later date.

All of these safety issues have the potential when things go wrong — see Fukushima — to lead to severe accidents, including reactor core meltdown.

District courts have issued injunctions against reactor restarts in Fukui prefecture, and in a historic ruling in March 2016 a court in Shiga prefecture ordered the immediate shutdown of the Takahama 3 and 4 reactors.

An appeal court is scheduled to rule on the above in the coming weeks and while it is anticipated that the reactor owner Kansai Electric will likely win, the prospects of further legal action remains.

Next month, for example, the former deputy chair of the NRA, Kunihiro Shimazaki will testify in a lawsuit against the operation of the Ohi reactors owned by Kansai Electric in western Japan.

Shimazaki, emeritus professor of seismology at Tokyo University and the only seismologist to have been an NRA commissioner, has challenged the formulas used by the regulator in computing the scale of earthquakes, which he believes underestimates potential seismic impact by factor of 3.5.

Last July the NRA dismissed Professor Shimazaki's evidence.

Six years after the start of the Fukushima Daiichi accident, only 3 of Japan's reactors are currently operating out of the 54 available in 2011.

For any business that runs the risk of its principal cash-generating asset being shut down at any point and for an extended period through legal challenges, the future does not look bright — unless you are granted approval to disregard the evidence.

The utilities are hemorrhaging money and therefore run the risk of following the same path as Tepco prior to 2011 in prioritizing cost savings over safety.

Such an approach directly led to the bankruptcy of Tepco, one of the world's largest power companies, and liabilities of at least 21 trillion yen.

The nuclear industry and current government of Prime Minister Shinzo Abe understand that to allow robust evidence of safety risks, in particular seismic, to determine the future of operation of reactors would mean the end of nuclear power in Japan.

Citizens from Fukushima with their lawyers and now supported by the judges, have moved Japan one step closer to that eventual scenario.

Shaun Burnie is a senior nuclear specialist with Greenpeace Germany. He has worked on nuclear issues worldwide for more than three decades, including since 1991 on Japan's nuclear policy.

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EDITORIAL: Court ruling on nuclear disaster sends warning to state, TEPCO

<http://www.asahi.com/ajw/articles/AJ201703200038.html>

A district court has ordered the government and Tokyo Electric Power Co. to pay compensation to dozens of people forced or driven to flee their homes because of the 2011 Fukushima nuclear disaster.

The Maebashi District Court's ruling March 17 sends a strong message to both parties to undertake serious soul-searching based on a keen awareness of their responsibility for the nuclear calamity.

Underlying the court decision in the group suit filed by Fukushima evacuees is the notion that both operators of nuclear power plants and the government have a grave obligation to prevent devastating accidents. Its rationale is that they have worked closely together to promote nuclear power generation as matter of national policy. Many people would fully agree with this line of thinking.

But there is no broad consensus on key legal liability issues related to the accident triggered by the Great East Japan Earthquake and tsunami. With regard to a criminal complaint filed against former senior TEPCO executives, for instance, prosecutors twice decided not to indict them, prompting a committee for the inquest of prosecution to conclude that the prosecutions must go ahead.

This ruling is the first in a series of group lawsuits that have been filed over the accident with district courts around the nation.

The rulings in all these suits will require close monitoring with regard to such issues as the scope of local residents who are deemed entitled to receive compensation and the amounts of damages awarded.

The Maebashi District Court's decision came as a fresh reminder of the "complacency" prevailing among policymakers, industry executives and other people involved in nuclear power generation before the March 11, 2011, disaster.

The court found that TEPCO realized as far back as 2002 that there was a possibility of a massive tsunami occurring but failed to take even simple preventive steps. It also said the government should have ordered the utility to take necessary safety measures.

The ruling contains many critical comments about the policies and positions adopted by the company and the government. It contended, for instance, that economy took priority over safety. It also said the government's unreasonable stance deserved the same kind of criticism that TEPCO should receive.

The ruling echoes the conclusion of the Diet's investigative committee into the disaster. In 2012, the panel said the fundamental cause of the accident was the failure of the utility and the government to make appropriate responses to the safety risks, even though they were aware of the danger.

Despite all these accusations, TEPCO has yet to publish a detailed review of the way it dealt with the risks of a large tsunami.

The utility should make an exhaustive investigation into what happened to answer many vital questions.

The questions include who should have made what kind of decisions and when in order to prevent the accident. Or what kind of organization TEPCO should have been to enable it to accept such decisions?

As the company responsible, TEPCO naturally has an obligation to conduct a serious inquiry to tackle these questions and release its findings to other utilities operating nuclear power plants. It must fulfill this obligation.

The government's nuclear power policy is also under scrutiny.

After the disaster, a new nuclear safety watchdog, the Nuclear Regulation Authority, was established for more effective regulatory oversight over nuclear power generation.

In recent years, however, some utilities have appeared to be resisting regulatory decisions concerning the recognition of the existence of an active fault near a nuclear facility and the estimation of a maximum possible seismic shaking for determining the quake-resistance requirements for a plant.

The latest court ruling should serve as a fresh opportunity for the government to review its own regulations for the nuclear industry. The government should change what has been criticized as a cozy relationship between nuclear regulators and plant operators and ensure that the utilities will always make quick responses to safety risks based on latest scientific knowledge.

In his speech at this year's official memorial ceremony for the victims of the Great East Japan Earthquake, Prime Minister Shinzo Abe didn't use the term nuclear accident. But there are still many issues related to the accident that remain to be examined and explored with utmost vigor and commitment.

--The Asahi Shimbun, March 19

TEPCO not quite ready to get rid of State

March 23, 2017

TEPCO to delay seeking end to state control by 2 years to FY 2019

<http://mainichi.jp/english/articles/20170323/p2g/00m/0dm/007000c>

TOKYO (Kyodo) -- Tokyo Electric Power Company Holdings Inc. will delay a decision on whether to seek an end to its state control by about two years to fiscal 2019 amid ballooning costs stemming from the 2011 Fukushima nuclear disaster, an outline of its new business plan showed Wednesday.

The move is another sign the utility is struggling to revive its business even after receiving a capital injection of 1 trillion yen (\$9 billion) from the government in 2012 to bolster its financial standing. But disaster cleanup costs have continued to rise, with the latest estimate reaching 22 trillion yen.

Under its latest business turnaround plan, which will be the third major revision since the first one was formulated in 2011, TEPCO aims to realign or integrate its nuclear and power transmission and distribution businesses with other utilities to improve its profitability. But it is uncertain whether business will get back on track as planned, with other utilities cautious about such tie-ups.

The company said it will establish a consortium with other utilities to quickly facilitate its reorganization and integration plan.

TEPCO and a state-linked entity offering financial support over massive compensation payments are expected to work out the details of the business turnaround plan and submit it to the government in April for approval.

The government had initially planned to release TEPCO from effective state control in April 2017 or later by reducing the ratio of voting shares currently owned by the entity to less than 50 percent from the current more than 50 percent.

But in the outline of the latest plan, TEPCO said the decision on the issue will be delayed from the end of fiscal 2016, which is this month, to fiscal 2019.

Under the plan, TEPCO is aiming to boost management efficiency and increase productivity.

The revised plan stresses the importance of reaching a basic agreement with Chubu Electric Power Co. to fully integrate their non-nuclear thermal power generation operations by this spring.

TEPCO is also planning to hold discussions with other utilities in the near future to promote the reorganization and integration of power transmission and distribution in the industry. The utility is considering acquiring related overseas operators over the medium- to long-term as part of the strategy. The company also envisions reorganizing and integrating its nuclear operations in the future. It hopes to establish a consortium with domestic nuclear operators to secure talent and technologies, and develop new light-water reactors. The utility is also aiming to expand into overseas nuclear power generation markets, according to the plan.

The company will also seek cooperation from other power companies in reactivating its Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture despite a public loss of confidence.

The prospect of the reactivation of the seven-reactor plant remains unclear with Niigata Gov. Ryuichi Yoneyama having taken a cautious stance toward its restart. The latest plan does not set out a specific timeline.

As compensation payments and decommissioning costs mount, TEPCO is expected to remain under effective state control. But TEPCO's status has prompted concerns among other major utilities that even if they cooperate, profits generated through such arrangements could be used to pay for decommissioning and damages.

To ease such concerns, rules for government involvement and where the cost burden will fall will be mapped out, the plan said.

Take nuke ruling seriously

March 22, 2017

Take nuclear disaster ruling seriously

<http://www.japantimes.co.jp/opinion/2017/03/22/editorials/take-nuclear-disaster-ruling-seriously/#.WNPFPGdFeos>

The court ruling last week that held Tokyo Electric Power Co. Holdings and the government responsible for failing to take steps to prevent the March 11, 2011, tsunami-caused meltdowns at Tepco's Fukushima No. 1 nuclear power plant should send a warning as authorities and the power industry move to restart nuclear reactors idled in the wake of the Fukushima disaster. The Maebashi District Court decision is only the first ruling on at least 30 damage suits filed across the country by evacuees from Fukushima Prefecture. But the Abe administration and the power companies need to seriously take the message in the ruling — that they need to maximally consider the risk of a severe nuclear power plant accident given the enormous damage that could result from such a disaster.

The Maebashi court rejected the claims by Tepco and the national government that the giant tsunami triggered by the Great East Japan Earthquake — which flooded the Fukushima No. 1 plant's emergency power system, leading to the loss of its reactor core cooling function and causing meltdowns in three of its six reactors — was unforeseeable and that they cannot be held liable for inaction to prevent the disaster. Pointing to a 2002 estimate by the government's Headquarters for Earthquake Research Promotion that there was a 20 percent chance of a magnitude-8 earthquake rocking areas off Fukushima within 30 years — and Tepco's own 2008 trial calculation based on the estimate that the No. 1 plant could be hit by a tsunami up to 15.7 meters high (almost the same height as the 15.5 meter-tsunami that hit on that day), the court determined that the power company was able to anticipate — and actually predicted — the tsunami risk but failed to take necessary action. It also accused the government of negligence to use its regulatory powers to get Tepco to take steps against possible tsunami damage. The argument by both Tepco and the government that the 2002 estimate was not scientifically established was refuted as the court called it a rational forecast that needed to be taken into account in assessing the tsunami-damage risk of a nuclear power plant.

Friday's ruling was on a suit filed by 137 people in 45 families who evacuated from Fukushima to Gunma and other prefectures to escape from the radioactive fallout from the Tepco plant meltdowns, seeking a total of ¥1.5 billion in compensation from the power company and the government. The court awarded 62 of the plaintiffs a combined ¥38.55 million in damages, saying that their right to lead their lives in peace had been violated by the Tepco plant accident. There are reportedly about 30 similar lawsuits filed across Japan, and the total number of plaintiffs — about 12,000 — testify to the enormous damage to people's lives from the nuclear disaster.

Six years after the March 2011 disasters, nearly 80,000 people from Fukushima Prefecture remain displaced from their homes. Reconstruction from the 2011 disasters continue to be slow in Fukushima compared with the two other severely affected prefectures of Miyagi and Iwate. Even as the government moves to lift evacuation orders in areas around the Tepco plant where the decontamination of polluted soil is deemed to have progressed, many of the former residents hesitate to return. Efforts to clean up the mess of the Fukushima No. 1 plant continue to be slow. The massive level of radiation inside the crippled reactor structures clouds prospects of work to dismantle the plant, which is expected to take decades. Since the Liberal Democratic Party returned to power in 2012, the administration of Prime Minister Shinzo Abe has sought to reactivate the nation's nuclear power reactors, most of which were idled in the wake of the 2011 disaster. Reversing its Democratic Party of Japan-led predecessor's policy of phasing out nuclear power, the administration now calls nuclear power a key "baseload" source of electricity supply. The government and the power industry say they have learned the lessons from the Tepco plant

meltdowns. Power companies have gone through a screening by the newly-created Nuclear Regulation Authority for restarting their reactors under what the administration calls the world's most stringent nuclear plant safety standards — updated since the Fukushima disaster to beef up resistance to natural disasters like quakes and tsunamis, and defense against severe accidents. Both the government and the power industries emphasize the safety of the nuclear reactors that have thus resumed operations. The government and the power industry should still heed the warning in the court ruling and consider whether they are sufficiently assessing the risks of a nuclear power plant disaster, which — as the case of Tepco's Fukushima plant starkly reminds us — will bring massive consequences to the lives of so many people. Noting that Tepco could have averted the tsunami risk by taking easy steps, such as moving the emergency power system to higher grounds, the court severely criticized the power company for putting priority on economic interests over safety. Today, power companies seek to restart their nuclear reactors as they face the heavy financial cost of imported fuel to run their thermal power plants. The court battles over the responsibility of Tepco and the government for the 2011 disaster will continue. But they should take the Maebashi court's decision — that the Fukushima nuclear disaster was preventable — seriously, and avoid complacency in the regime to ensure safety in nuclear power plant operation.

Toshiba-Westinghouse- Bankruptcy

March 23, 2017

Toshiba says Westinghouse board to decide on bankruptcy

<http://www.japantimes.co.jp/news/2017/03/23/business/corporate-business/toshiba-says-westinghouse-board-decide-bankruptcy/#.WNPewGdFeot>

Bloomberg

Toshiba Corp. said the board of its nuclear unit Westinghouse will decide whether to file for bankruptcy, suggesting that is one option under consideration as it struggles with billions of dollars in liabilities from cost overruns on nuclear construction projects.

“Whether or not Westinghouse files for Chapter 11 is ultimately a decision for its board, and must take into account the various interests of all of its stakeholders, including Toshiba and its creditors. It is not appropriate for Toshiba to comment prematurely,” the Tokyo-based company said in an emailed statement.

The electronics conglomerate has been grappling with construction delays at Westinghouse projects. Toshiba has estimated it will need to take a write-down of ¥712.5 billion (\$6.2 billion), though it hasn't been able to get auditors to sign off on the final figures. The company said earlier this month that it's reevaluating Westinghouse's position within the group and it may deconsolidate the nuclear unit by selling a controlling equity stake.

“Westinghouse’s bankruptcy is really the only way for Toshiba to limit the risks of further losses in the business,” said Kazunori Ito, an analyst at Morningstar Investment Services. “If there is a reason for the shares to be up today, it may be because some believe that the Chapter 11 process is coming along.” Westinghouse also appears to be already assembling a team of lawyers and advisers to help with the restructuring. The company has hired PJT Partners Inc., sources have said. Lisa Donahue of AP Services LLC, an affiliate of AlixPartners, will lead the Pittsburgh-based company’s operational restructuring efforts, according to a spokeswoman at Westinghouse.

Westinghouse’s customers, the utilities Scana Corp. and Southern Co., have hired advisers in preparation for its possible bankruptcy, Reuters reported, citing unidentified people familiar with the matter. It also brought in bankruptcy attorneys from Weil Gotshal & Manges LLP, Reuters reported earlier.

Scana and Southern Co. could end up dealing with billions of dollars in additional cost overruns from the power plants they hired Westinghouse to build, according to Morgan Stanley. Utility owner Scana faces as much as \$5.2 billion in higher costs that could drag its shares down 5 percent, Morgan Stanley analysts including Stephen Byrd said in a research note Wednesday. Cost overruns for utility owner Southern could reach \$3.3 billion.

“We will continue to hold Westinghouse and Toshiba accountable for their responsibilities under our agreement,” Jacob Hawkins, a Southern spokesman, said. “We are monitoring the situation and prepared for any potential outcome.”

Sarah Cassella, a Westinghouse spokeswoman, declined to comment when reached by phone. Southern and Scana didn’t immediately respond to requests for comment on the Reuters report.

Toshiba has delayed its earnings announcement twice, saying it needed more time to examine reports of “inappropriate pressure” internally to push through the acquisition of a U.S. construction firm specializing in building atomic plants. Toshiba now has until April 11 to report earnings, though it can request another extension.

Won't be so easy

March 23, 2017

Tough task for TEPCO to rehabilitate despite new turnaround plan

<http://mainichi.jp/english/articles/20170323/p2a/00m/0na/006000c>

Tokyo Electric Power Company Holdings Inc. (TEPCO) on March 22 released an outline of its new rehabilitation plan focusing on efforts to integrate its nuclear and power transmission and distribution businesses with other utilities, but sceptics and industry insiders say it is easier said than done.

- **【Related】** TEPCO to delay seeking end to state control by 2 years to FY 2019
- **【Related】** Gov't and TEPCO put money before safety at Fukushima nuclear plant: court ruling

Although TEPCO released the latest business turnaround plan, other major utilities are reluctant to partner with the beleaguered utility that carries a huge financial burden to deal with the accident at the Fukushima No. 1 Nuclear Power Plant. There are no prospects for whether and when the utility will be able to reactivate its Kashiwazaki-Kariwa Nuclear Power Plant in Niigata Prefecture, which TEPCO says is

a key part of its efforts to improve its profitability. Such being the case, hurdles for TEPCO in rehabilitating itself remain high.

TEPCO Holdings Managing Executive Officer Seiichi Fubasami said at a news conference in Tokyo on March 22, "We will aim to reorganize our power transmission, distribution and nuclear power businesses to improve our corporate value."

TEPCO stipulated in its latest business turnaround plan that it would aim to set up entities such as a consortium with other major utilities in the early 2020s to jointly operate a power grid. With respect to issues involving its wide area business operation and joint material procurements with other utilities, TEPCO said in its new business plan that as a first step it would set up a "forum for sharing recognition" of the project at an early date. TEPCO is to reorganize its nuclear power business although it did not set a specific timeframe.

Other major utilities have persistent worries that if they were to form business tie-ups with TEPCO in which the state has a majority of voting shares, they could be forced to shoulder part of the costs of responding to the disaster at the Fukushima nuclear plant. Therefore, as to management policies of a consortium and the like over how much of profits earned should be allocated for dividends and investments, among other details, TEPCO's plan stipulated that the utility would sort out rules over to what extent the state would get involved in the management of such companies.

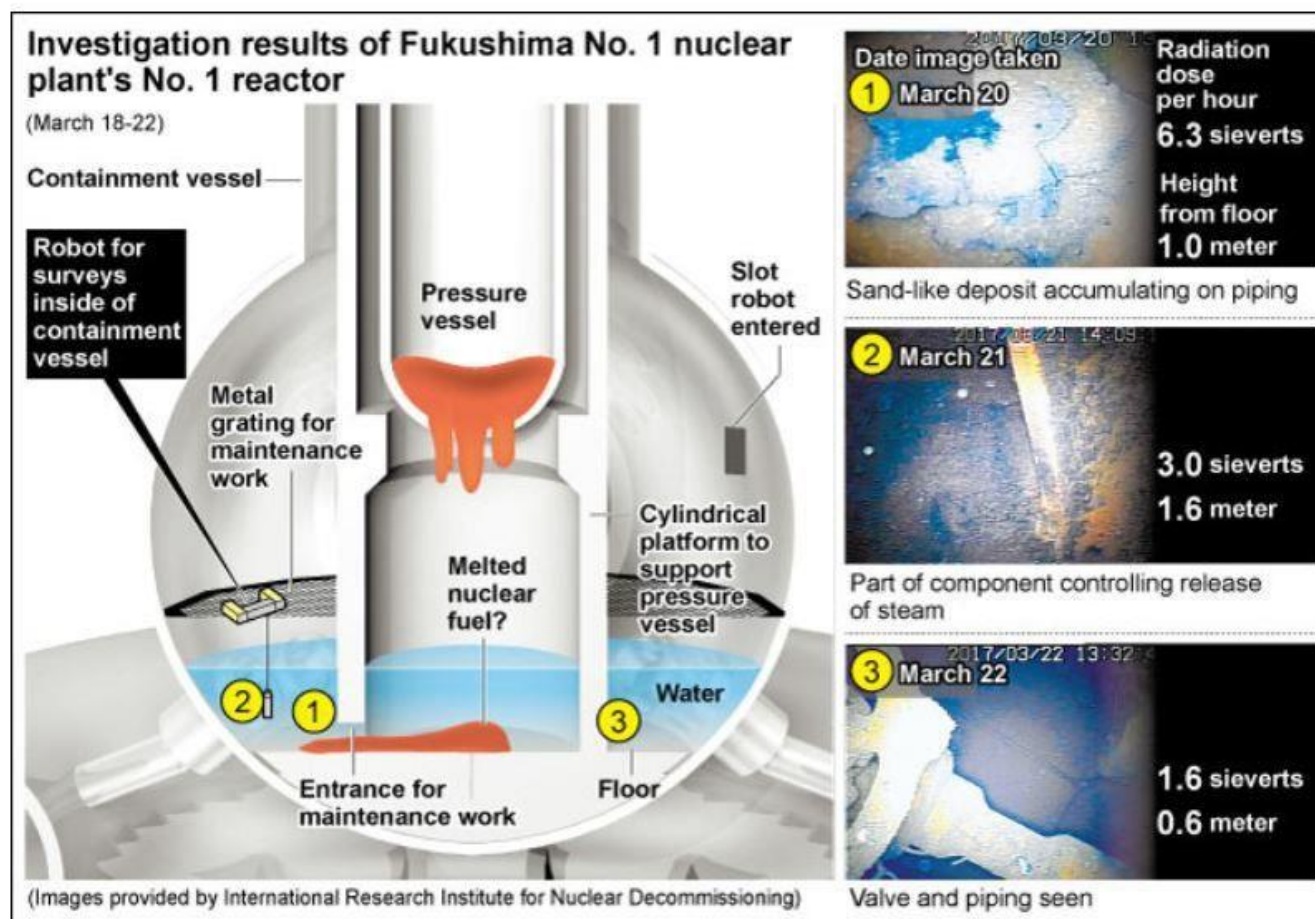
However, other power companies are highly cautious, with one senior official of a major utility saying, "Unless they show us specific policies, we can't trust them as we fear that we could really be caught in a pit." On the fact that TEPCO is expected to remain under de-facto state control until fiscal 2019, the senior official said, "Our concern has grown bigger as to how long the state will stand behind the company."

Meanwhile, there are various issues surrounding the Kashiwazaki-Kariwa plant, which TEPCO regards as its key project to boost its profitability. Niigata Gov. Ryuichi Yoneyama, who is cautious toward its restart, has said it will take "several years" to decide whether to approve the reactivation of the facility. Earlier this year, it came to light that TEPCO had filed a report in which it overestimated the quake-resistance of a key building at the nuclear complex, losing the confidence of local residents and stalling the Nuclear Regulation Authority's screening.

The outline of the latest business turnaround plan showed TEPCO's intention to tide over the problems by receiving expertise in dealing with the NRA and other similar organizations from other major utilities that have successfully restarted their reactors. But TEPCO faces a rough road ahead and it failed to incorporate into its plan specific prospects of when it would be reactivated.

The focus will now shift to who will be in charge of steering the company toward management reforms stipulated in the new rehabilitation plan. The government has unofficially asked Hitachi Ltd. honorary chairman Takashi Kawamura to succeed TEPCO Chairman Fumio Sudo. According to sources knowledgeable about the matter, Kawamura is positive about the proposal and discussions are underway over a new management setup. Attention is also focused on what will happen to TEPCO President Naomi Hirose and other current senior executives.

NRA has doubts about TEPCO's robot trials



The Asahi Shimbun
March 23, 2017

Nuke watchdog critical as robot failures mount at Fukushima plant

THE ASAHI SHIMBUN

Some Nuclear Regulation Authority members are skeptical of continuing to send robots into reactors in the crippled Fukushima No. 1 nuclear plant to collect vital data on the locations of melted nuclear fuel and radiation levels.

These regulators are increasingly calling for a new survey methodology after recent investigations utilizing robots controlled remotely generated few findings and were quickly terminated.

"We should come up with a method that will allow us to investigate in a short period of time and in a more sensible way," said a senior member of the NRA, the government watchdog.

The suggestion followed the failure of the latest probe from March 18 to March 22 in which a robot was sent in the No. 1 reactor to ascertain the location of fuel debris, information crucial to preparing for the decommissioning.

Tokyo Electric Power Co., the operator of the plant, said on March 23 the robot was unable to deliver a camera to planned spots from where images of nuclear fuel debris could be taken.

The utility cited the piping and deposits of what looked like sand accumulating on the piping as impediments that hindered the robot surveyor's path.

The survey was designed for the robot to reach numerous locations inside the No. 1 reactor to determine the location of nuclear fuel debris and their radiation levels.

The lower part of the reactor's containment vessel is submerged in water where deposits of fuel debris are believed to reside below the surface after melting through in the 2011 nuclear disaster, triggered by the Great East Japan Earthquake and tsunami.

At one location, the robot succeeded in placing a camera, which is combined with a dosimeter, to a depth 0.3 meter from the containment vessel floor.

The probe measured underwater radiation levels from 3.0 to 11 sieverts per hour during the five-day survey. But it was unable to take images of the debris in the water.

TEPCO and the government hope to start removing molten nuclear fuel from 2021. But they have yet to collect information on the location, amount and condition of the melted fuel.

In a survey of the No. 2 reactor in February, a robot became stuck in deposits and other debris after traveling only 2 meters inside.

Surveyor robots for the No. 1 through No. 3 reactors have been developed by the International Research Institute for Nuclear Decommissioning since 2014, a project costing 7 billion yen (\$62 million) by the end of March 2018.

It takes time to develop such multifunctional robots, but the surveys centering around the robots so far have failed to produce meaningful results.

No survey has been conducted at the No. 3 reactor.

(This article was written by Kohei Tomida and Masanobu Higashiyama.)

Joining UN nuclear ban talks... or not

March 26, 2017

Japan mulling to speak before UN nuclear ban talks

https://www3.nhk.or.jp/nhkworld/en/news/20170326_11/

Japan is considering delivering a speech at the United Nations ahead of talks to draw up a legally binding treaty to ban nuclear weapons.

The negotiations will begin on Monday in New York in line with a resolution adopted at the UN General Assembly in December.

Japan, along with the United States and other nuclear weapons states, voted against the resolution. Tokyo is now considering whether to join the negotiations.

Representatives of participating countries are scheduled to give speeches immediately before the start of the talks.

Japan's UN diplomatic sources say officials are now arranging to have Tokyo's envoy to the Geneva-based Conference on Disarmament, Nobushige Takamizawa, speak.

Takamizawa is expected to stress the importance of abolishing nuclear weapons, as a representative of

the only country to have experienced atomic bombings.

He is also likely to reiterate Tokyo's position that disarmament should occur in stages, with the cooperation of both nuclear and non-nuclear states.

Attention is focused on whether Japan will take part in the negotiations, while the US and other nuclear powers are not expected to join.

March 25, 2017

UN official wants Japan to join anti-nuclear talks

https://www3.nhk.or.jp/nhkworld/en/news/20170325_16/

A UN disarmament official has indicated Japan should join negotiations toward a treaty to legally ban nuclear weapons.

UN High Representative for Disarmament Affairs Kim Won-soo made the remark when he met with Japanese Communist Party Chairperson Kazuo Shii on Friday at UN headquarters in New York.

Shii told reporters that he exchanged views with Kim over the 5-day denuclearization talks that open on Monday.

Kim has been quoted as saying he expects Japan to take an active role in the talks as the only country to have experienced atomic bombings.

He reportedly stressed the importance of US and other nuclear powers also taking part.

The nuclear armed states have indicated they do not intend to work toward a treaty due to their own national security concerns.

Shii also met with Japan's UN Ambassador Koro Bessho. He said Bessho told him that Japan's participation is still undecided.

UN & Nukes



Historic vote at the UN means nuclear weapons will be illegal in 2017

Last year something historic happened at the United Nations. Despite enormous pressure from the United States, 123 nations, all with equal standing at the UN General Assembly, voted to start a process in 2017 to negotiate a ban on nuclear weapons. Why isn't this news circulating like wildfire? Why aren't there parties on the street?

27th March: Talks to start on a treaty to ban nuclear weapons

Talks start on the 27th of March, 2017 in New York. Anti-nuclear civil society organisations and countries supporting a ban treaty can barely contain their excitement that a substantive step in fulfilling NPT article VI commitments to nuclear disarmament is going to take place for the first time since the Comprehensive Nuclear-Test-Ban Treaty was opened for signing in 1996 (it still hasn't come into force because eight countries still refuse to sign it: China, Egypt, India, Iran, Israel, North Korea, Pakistan, United States).

*"The Conference, while welcoming achievements in bilateral and unilateral reductions by some nuclear-weapon States, notes with concern that the total estimated number of nuclear weapons deployed and stockpiled still amounts to several thousands. The Conference expresses its deep concern at the continued risk for humanity represented by the possibility that these weapons could be used and **the catastrophic humanitarian consequences that would result from the use of nuclear weapons**" (emphasis added).*

So said the 2010 UN conference to review progress of the nuclear Non-Proliferation Treaty (NPT) after a turbulent 4 weeks in which several delegations walked out when the Iranian president got up to speak at the start of the conference, and the Iranians had to then delay agreement of the consensus document at the end of the conference in order to seek advice from Tehran because they never thought the USA would agree to calls for a conference to establish a zone free of nuclear weapons in the Middle East.

Nevertheless, the 2010 consensus document was accepted by all countries except the 4 nuclear-weapon-bearing countries that aren't signatories to the NPT and weren't there (India, Pakistan, Israel and North Korea) and so a new impulse was unleashed to drive forward civil-society organisations and countries anxious to disarm the planet, in the same way that efforts to ban landmines and cluster weapons were able to focus on their effects on human beings and not on geopolitical and business interests of weapons sellers and manufacturers.

A series of conferences to analyse these humanitarian consequences was held in Norway,

Mexico and Austria in 2012 and 2013, in which we learnt that 100 bombs dropped on cities would effectively wipe out human civilisation as we know it today, and Austria launched a pledge in the final meeting in Vienna, subsequently known as the Humanitarian Pledge which included a call...

*“...on all states parties to the NPT to renew their commitment to the urgent and full implementation of existing obligations under Article VI, and to this end, **to identify and pursue effective measures to fill the legal gap for the prohibition and elimination of nuclear weapons** and we pledge to cooperate with all stakeholders to achieve this goal”* (emphasis added)

In 2014, support for the pledge grew, it was turned into the form of a resolution at the UN General Assembly and received the support of 127 countries. In 2015, the NPT failed to make any progress on nuclear disarmament at all and a consensus document couldn't be agreed upon even when non-nuclear-weapons states allowed all strong language in favour of progress to be removed. But what was seen to be a failure as some was taken as an opportunity by those nations supporting the humanitarian initiative and new resolutions were taken to the UN General Assembly; firstly in 2015 to convene an Open-Ended Working Group (OEWG) to examine effective measures for nuclear disarmament which recommended advancing with a ban-treaty; and secondly in 2016 to convene talks in 2017 to act on the OEWG recommendation for a treaty effectively prohibiting nuclear weapons. This latter resolution L.41 of 2016 was passed with the overwhelming support of 123 countries.

And here we are!

Talks start on the 27th of March, 2017 in New York and anti-nuclear civil society organisations and countries supporting a ban treaty can barely contain their excitement that a substantive step in fulfilling NPT article VI commitments to nuclear disarmament is going to take place for the first time since the Comprehensive Nuclear-Test-Ban Treaty was opened for signing in 1996 (it still hasn't come into force because eight countries refuse to sign it: China, Egypt, India, Iran, Israel, North Korea, Pakistan, United States). No one expects the USA, Russia, France and the UK to take part in the talks, but China looks like it will. No one expects even one nuclear weapon to be dismantled following this treaty either.

Nevertheless, it is an important step on the path to NPT compliance and a legal norm will be established, nuclear weapons will be legally banned, their possession will be stigmatised, doing business with companies involved in the supply-chain of nuclear weapons will be very controversial in the eyes of the public, and civil society organisations will have new weapons with which to sensitise the public through divestment campaigns about the devastating effects of a nuclear war and the increasing imperative to get rid of them once and for all.

And this is what the USA, Russia, France and the UK fear the most: negative public opinion towards nuclear weapons, because it is only internal domestic pressure that will create the conditions for nuclear disarmament.

Talks convene for a week in March and for two further weeks in July.

Pressenza and our network of friends in the International Campaign to Abolish Nuclear Weapons will be there to bring our readers all the latest news, developments and stimulating opinions on everything to do with this historic moment on the road to nuclear

disarmament.

Reshuffle at TEPCO's

March 31, 2017

Tepco picks new young leader Kobayakawa to take reins of reform

<http://www.japantimes.co.jp/news/2017/03/31/business/corporate-business/tepco-picks-new-young-leader-kobayakawa-take-reins-reform/#.WN-3lmekKos>

Kyodo

Tokyo Electric Power Company Holdings Inc. said Friday it will appoint Tomoaki Kobayakawa, the 53-year-old head of the group's electricity retail arm, as president, rejuvenating top management amid increasing pressure for corporate reform.

The operator of the disaster-hit Fukushima No. 1 nuclear plant also named Takashi Kawamura, honorary chairman of Hitachi Ltd., as chairman to back the new president. The company said it will seek shareholder approval for the management reshuffle in June.

Kobayakawa, the president of Tepco Energy Partner Inc., will replace 64-year-old Naomi Hirose.

Kobayakawa has been taking initiatives in response to liberalization in the electricity and gas sectors. He will now deal with the continuing fallout from the March 2011 triple core meltdown.

Hirose will take up the new post of vice chairman, which is not a member of the board, responsible for compensation for damage caused by the nuclear disaster.

At a board meeting Friday, the government, which holds a majority stake in the utility, acknowledged that Tepco needs to revamp its business revitalization plan and reshuffle management amid the soaring decommissioning and compensation costs, which are projected to hit about ¥22 trillion (\$196.6 billion), nearly double the 2013 estimate.

Kawamura, a 77-year-old corporate heavyweight in the business community, is a member of the government panel discussing Tepco's new reform plan and has been credited with Hitachi's successful restructuring. He will replace Fumio Sudo, 76.

March 27, 2017

TEPCO to reshuffle top managers

https://www3.nhk.or.jp/nhkworld/en/news/20170327_13/

Some big changes are in store for the boardroom of the company that operates the Fukushima Daiichi nuclear plant. A planned reshuffle at Tokyo Electric Power Company Holdings is aimed at speeding up work at the crippled plant and moving ahead with business reforms.

The government owns a majority of the shares in TEPCO Holdings, giving it effective control. The company

faces a decades-long task of decommissioning the melted down reactors and paying compensation.

Sources say government officials are now putting the finishing touches on a plan to replace Chairman Fumio Sudo. Taking his place will be Takashi Kawamura, chairman emeritus of electronics-maker Hitachi.

TEPCO Holdings President Naomi Hirose will become vice chairman and he's going to focus on efforts to help revitalize Fukushima Prefecture.

Tomoaki Kobayakawa, who heads the group's retail unit, will be taking over his job. TEPCO plans to hold a board meeting as early as Friday to formally approve the new lineup.

TEPCO to reshuffle top management, promote Kobayakawa to president

<http://mainichi.jp/english/articles/20170327/p2g/00m/0bu/004000c>

TOKYO (Kyodo) -- Tokyo Electric Power Company Holdings Inc., operator of the disaster-hit Fukushima nuclear power plant, will reshuffle its top management, promoting Director Tomoaki Kobayakawa to president, people close to the matter said Sunday.

The company, known as TEPCO and effectively controlled by the Japanese government, will finalize the new management team by the end of this month and seek shareholder approval in June, they said.

Kobayakawa, 53, will replace Naomi Hirose, 64, who will take up the new post of vice chairman responsible for compensation paid for damage caused by the nuclear disaster triggered by a massive earthquake and tsunami in March 2011.

Takashi Kawamura, the 77-year-old honorary chairman of Hitachi Ltd., will become TEPCO chairman, replacing Fumio Sudo, 76.

The management changes come as a government panel of experts is finalizing a business revitalization plan.

With the disaster cleanup cost now projected at 22 trillion yen (\$198 billion), nearly doubled the 2013 estimate, government officials and the power company's outside directors agreed that a new management team should lead fresh reform efforts, according to the sources.

Hirose has been serving as TEPCO president since June 2012. His appointment as vice chairman may face some opposition within the company as the move would effectively be a demotion, the sources said.

Kawamura is currently a member of the government panel discussing TEPCO's new reform plan and has been credited with Hitachi's successful restructuring.

See also : <http://www.japantimes.co.jp/news/2017/03/26/business/corporate-business/state-taps-director-kobayakawa-become-tepcos-next-president/>

Evacuees ARE victims

March 26, 2017

Japan Political Pulse: The truth about Fukushima nuclear disaster compensation

<http://mainichi.jp/english/articles/20170326/p2a/00m/0na/003000c>

Of the unknown number of children who have been bullied for being from Fukushima Prefecture, where a nuclear disaster is still ongoing at a power station six years since its outbreak, one boy who evacuated to Yokohama was bullied and extorted by his classmates of 1.5 million yen in total.

Now in his first year of junior high school, the boy wrote when he was in sixth grade, "My classmates said, 'You get compensation, right?' That annoyed me, but I was frustrated with myself for not standing up against them."

Ironically, news reports say that because the family voluntarily evacuated from Fukushima Prefecture, they are not eligible for the high levels of compensation from the operator of the stricken nuclear plant, Tokyo Electric Power Co. (TEPCO), that some victims are entitled to receive.

Those who evacuated from Fukushima Prefecture due to the nuclear crisis can be largely categorized into two groups. The first are those who were forced to leave their homes under evacuation orders from the central government, because they lived in areas where annual cumulative radiation levels exceeded 20 millisieverts, or otherwise faced extenuating circumstances as determined by the state. Such people receive a certain lump sum from TEPCO as compensation.

The second group comprises people who lived in areas with radiation levels that did not prompt government evacuation orders, but who evacuated voluntarily out of concern for the health of themselves and their children. As a general rule, these people are not eligible for compensation from TEPCO.

In the case of forced evacuations, TEPCO conducts individual interviews with evacuees to assess the value of their property and homes. But this is strictly to compensate for the assets that people have lost.

What has often attracted attention but remains commonly misunderstood, is the monthly 100,000 yen per person that evacuees are said to be receiving as compensation for emotional suffering. Those who evacuated without orders to do so from the government are not eligible for this, either.

Meanwhile, the provision of compensation for emotional suffering to state-ordered evacuees whose homes are in areas where evacuation orders are set to be lifted will be stopped in March 2018. Whether or not such evacuees will return to their homes in Fukushima Prefecture once the no-go orders are lifted, they face the harsh reality that they will be cut off from government assistance. The government is rushing to rebuild infrastructure, and appeal to the world that they are lifting evacuation orders. But whether to return or to relocate is a difficult decision, especially for families with children.

People who evacuated from Fukushima Prefecture have not only been exposed to radiation, but to prejudice and misunderstanding regarding compensation that they may or may not have received.

The false rumor that compensation recipients are enjoying the high life from compensation payments has spread. We can't deny that some probably indulged in the momentary influx of money and bought property or a fancy car. But because of that, the internet has been teeming with rumors that compensation recipients are tax thieves or calls for them to go back where they came from. And there's no doubt that such a backdrop of online defamation and scandalmongering emboldened the children who bullied the boy in Yokohama.

The truth is, the family of the boy in Yokohama had evacuated Fukushima Prefecture voluntarily. They received a little over 1 million yen from TEPCO, but the parents said in an interview with an NHK new program, Close Up Gendai, that the money was put toward rebuilding their lives. Voluntary evacuees are

exempt from paying rent due to the Disaster Relief Act, but many must restart new lives amid unstable finances.

The abovementioned boy moved to Yokohama with his family when he was in second grade. Shortly thereafter, classmates called him by his name, with the word for "germs" added on to the end. He soon found himself the victim of physical abuse such as hitting and kicking, and once he reached fifth grade, classmates demanded he give them money.

"I was so scared I didn't know what to do," the boy wrote. He stole from his parents and gave away a total of 1.5 million yen.

His parents, and other parents of children at the school who realized that something was going on, alerted the school. The school conducted an investigation, but took the bullies' claims that the boy had given them money willingly at face value, and did nothing to remedy the situation for two years.

I, too, only learned the truth about the case just recently, but I believe the school's misguided judgment was likely based on ignorance and prejudice toward compensation given to Fukushima Prefecture evacuees.

The boy's mother had been traveling back and forth between Yokohama and Fukushima. He knew how much his parents were struggling, so he remained silent about the bullying.

What moved the case into a new direction were notes the victim had written in the summer of sixth grade. A message calling on bullying victims not to kill themselves also written by the now first-year junior high school student who attends an alternative school, was also released to the public.

Compensation is given to some victims of the Fukushima nuclear disaster. But there is still too little compassion toward and understanding of the various misunderstandings, discrimination and divisions that disaster victims face. (By Takao Yamada, Special Senior Writer)

Westinghouse bankrupt

March 30, 2017

Toshiba's decision to put Westinghouse into bankruptcy was agonizing

<http://mainichi.jp/english/articles/20170330/p2a/00m/0na/015000c>

Toshiba Corp. President Satoshi Tsunakawa bows during a March 29, 2017 news conference in Tokyo about the Chapter 11 bankruptcy filing by its U.S. subsidiary Westinghouse Electric Co. (Mainichi)

With Toshiba Corp. approving its troubled nuclear unit Westinghouse Electric Co.'s decision to file for bankruptcy in the U.S. on March 29, it is worth reflecting on the buildup to this agonizing move by the electronics giant.

- **【Related】** Toshiba's nuclear unit files for bankruptcy, 1 tril. yen loss eyed
- **【Related】** Failure to monitor Westinghouse brings Toshiba to the brink
- **【Related】** Shareholders approve spinoff of Toshiba's prized memory chip unit

Looking back, it appears that the writing was already on the wall by the morning of March 14, 2017. With just several hours to go until Toshiba was due to hold a major news conference later that day, the company's president, Satoshi Tsunakawa, told participants at a Toshiba head office board meeting the following: "At today's news conference, I will talk about Westinghouse filing for Chapter 11 bankruptcy in the U.S."

There were no objections from the other board members. By this point, it was now clear that Toshiba -- which had incurred huge losses through Westinghouse's nuclear business in the U.S. -- was aiming toward putting its nuclear unit into bankruptcy. At the news conference held from 4 p.m. onward later that day, Tsunakawa did not rule out filing for bankruptcy for Westinghouse, stating that "there are several options" concerning the future of its American subsidiary.

The first time that Toshiba's huge financial losses in its U.S. nuclear unit became clear was Dec. 27, 2016.

The reason for these losses, which are estimated to be 712.5 billion yen, are huge cost overruns that resulted from significant delays in nuclear plant construction projects in the U.S.

About one week before the announcement at the end of December, Tsunakawa informed six outside directors that Westinghouse had incurred new huge losses, in addition to the 260 billion yen losses -- which had been written off at the end of the business year ending in March 2016. Upon hearing this shocking revelation, Toshiba's outside directors were lost for words.

The severity of the problem worsened as the days went by. The extent of Westinghouse's estimated losses, which had first been calculated at around 480 billion yen, swelled to more than 700 billion yen. Toshiba's main creditor banks were concerned: "Unless your financial situation significantly improves, we cannot keep funding your company." With this kind of pressure emerging from its banks, Toshiba's senior management decided in late January to sell off the main part of its flagship semiconductor business, which had been generating about 70 percent of the company's profits.

However, the decision infuriated Toshiba's outside directors. "Why are you keeping our failing units but selling off the successful ones?" remarked one of the outside directors to the senior managers. As time went by, this particular sentiment became stronger among related parties, and Tsunakawa and his fellow senior executives were under increasing pressure to put Westinghouse into bankruptcy and withdraw from the overseas nuclear sector.

However, with Toshiba having agreed with Westinghouse that they would cover approximately 650 billion yen's worth of debt guarantee money in the event of bankruptcy, the electronics giant knew that putting its nuclear unit into bankruptcy would come at a high price. With this stark reality in mind, one wonders if already fragile Toshiba will be able to cope with the debt guarantee costs that will come with Westinghouse's bankruptcy filing.

Essentially, the tide concerning Westinghouse and the option of bankruptcy turned in February. A team of specialists calculated that by gaining 2 trillion yen through the sale of the main part of Toshiba's semiconductor unit, the company would be able to cover the estimated 1 trillion yen cost of putting Westinghouse into bankruptcy. In addition, Toshiba's group of creditor banks implied that a bankruptcy filing in March would be preferable, as it would enable a fresh start for fiscal 2017. As a Toshiba board member recently explained, "The banks were worried about the financial situation surrounding nuclear power plant construction in the U.S. There was a sense that if we didn't aim for bankruptcy for Westinghouse by the end of fiscal 2016, the banks would lose their patience."

With this kind of stark reality in mind, Tsunakawa officially informed the heads of the banks on March 16 that "Westinghouse will file for bankruptcy in March." Later that month, on March 29, one of Toshiba's board members commented in a relieved manner, "We have finally cut off from our negative legacy." However, with losses associated with Westinghouse filing for bankruptcy expected to be in excess of 1 trillion yen, the financial damage to Toshiba cannot be overestimated.

Failure to monitor Westinghouse brings Toshiba to the brink

<http://mainichi.jp/english/articles/20170330/p2a/00m/0na/010000c>

March 30, 2017 (Mainichi Japan)

In February 2006, then Toshiba Corp. President Atsutoshi Nishida declared to a London audience that his firm would become a world standard-setting nuclear reactor maker. Nishida was there to ink the contract that would make U.S. nuclear technology firm Westinghouse Electric Co. a Toshiba subsidiary, and at the ceremony Nishida looked and sounded ready to take on the world.

- **【Revised】** Toshiba's nuclear unit files for bankruptcy, 1 tril. yen loss eyed
- **【Related】** Toshiba's decision to put Westinghouse into bankruptcy was agonizing
- **【Related】** Shareholders approve spinoff of Toshiba's prized memory chip unit

Toshiba paid some US\$5.4 billion (about 640 billion yen) to acquire Westinghouse. Before the deal was closed, observers had seen past business partner Mitsubishi Heavy Industries Ltd. as Westinghouse's most likely suitor, and projected a purchase price in the 200 to 300 billion yen range. However, Toshiba swooped in and sealed the deal with what could be called a stratospheric bid.

That Nishida plunged ahead with such enthusiasm was down to the Ministry of Economy, Trade and Industry's push to make Japan a major nuclear technology exporter. Japanese reactors were supposed to be literally going places. Global warming countermeasures had emerged as a world issue, and nuclear power appeared to be a promising zero-emission alternative to fossil fuel-fed electricity generation. It was an atomic power "renaissance" in the making, bolstered in Japan by government and industry plans to make it a centerpiece of the country's infrastructure export drive.

When Toshiba bought Westinghouse, Nishida boasted that, by 2015, the firm would be contracted to build or already building 33 reactors around the world. Norio Sasaki, who succeeded Nishida in the president's chair in 2009, upped that goal to 39 reactors by fiscal 2015. Together with Westinghouse, Toshiba pulled in reactor orders in the United States and in emerging nations, and it appeared as though nuclear technology would become the firm's sturdiest and most essential business.

All that began to change in March 2011, when three reactor cores at the tsunami-crippled Fukushima No. 1 nuclear plant melted down, igniting the Fukushima nuclear crisis that continues its slow burn even today. Countries around the world moved swiftly to beef up nuclear safety regulations, and the "zero nuclear" movement gained tremendous public and political traction. It was obvious that the business climate for nuclear power was undergoing a seismic shift, but Toshiba did not adjust its strategy.

According to one source with the company, "The firm was internally divided into little plots based on where workers got their start, in nuclear power, or in semiconductors, or whatever. All that they did was play the blame game."

Toshiba's executive ranks, apparently oblivious to Westinghouse's ailing business performance, did not realize the U.S. subsidiary was losing oceans of money until December last year. One power company executive told the Mainichi Shimbun they were shocked to hear a Westinghouse executive brag, "Running our company is really easy because Toshiba never gets involved. Toshiba is a cash dispenser."

In other words, though they paid a premium to acquire Westinghouse, Toshiba's past management teams then abandoned even supervising their new subsidiary, let alone managing it -- a tremendous blunder. And as a result, the entire company now finds itself bogged down and sinking in a vast swamp of red ink. "That was a decision with very serious problems," said current Toshiba President Satoshi Tsunakawa when asked on March 29 about the Westinghouse acquisition, a bitter expression on his face.

Toshiba approves U.S. nuclear unit's decision to file for bankruptcy

<http://mainichi.jp/english/articles/20170329/p2a/00m/0na/014000c>

March 29, 2017 (Mainichi Japan)

Electronics giant Toshiba Corp. has approved its U.S. nuclear unit Westinghouse Electric Co.'s decision to file for Chapter 11 bankruptcy protection, during a board meeting held at the Japanese company on March 29. Westinghouse proceeded to file for bankruptcy on March 29, Japan time.

- **【Related】** Toshiba eyes bankruptcy filing for U.S. subsidiary Westinghouse in March
- **【Related】** Toshiba U.S. nuclear power unit liquidation may flare into diplomatic dustup
- **【Related】** Toshiba contracted to cover increased costs of building nuclear reactors in U.S.

The approval by Toshiba marks the company's move to avoid any further financial risks relating to Westinghouse in the U.S., as well as its total withdrawal from the overseas nuclear business sector. Toshiba's decision to cut itself off from its subsidiary Westinghouse comes 11 years after the Japanese company bought the latter in 2006. Prior to the bankruptcy filing announcement on March 29, Westinghouse was working on the construction of four new nuclear plants in the U.S. However, following the introduction of stricter safety regulations following the disaster at Tokyo Electric Power Co. (TEPCO)'s Fukushima No. 1 Nuclear Power Plant in 2011, these construction projects became delayed and Westinghouse incurred huge cost overruns, causing Toshiba to post consolidated losses of 712.5 billion yen in the business year ending in March 2017.

With the risk of incurring even more losses in its U.S. nuclear unit, Toshiba has decided to go for a clean break -- a move which was made crystal clear by the Japanese company's decision on March 29 to give the green light to Westinghouse's proposed bankruptcy filing. However, the break will not be that smooth. Even after Westinghouse goes into bankruptcy and is removed from Toshiba's consolidated companies, Toshiba will still need to cover a guaranteed debt bill in the region of 800 billion yen, meaning that total losses could potentially swell to a staggering 1 trillion yen.

Now that Westinghouse has applied for bankruptcy protection, legal procedures for its future movements will start, such as finalizing the amount of debt and mapping out its reconstruction plans, under the supervision of U.S. courts. And once the company has tidied up its contracts and liabilities, it will be in a position to search for new sponsors. Meanwhile, in Japan, Toshiba will completely break away from the overseas nuclear business sector, and focus specifically on the domestic nuclear business including decommissioning projects, as well as on infrastructure projects.

The current situation is probably not what either company expected in 2006 -- when Toshiba bought Westinghouse, and the two companies had bold plans to commence work on 33 nuclear power reactors by 2015. However, the 2011 Fukushima nuclear disaster triggered a slump in global nuclear demand, and by the end of the business year ending in March 2016, Toshiba declared losses of 260 billion yen.

Kansai Electric & unpaid overtime

March 30, 2017

Kansai Electric admits failure to pay overtime for 12,900 workers

<http://www.asahi.com/ajw/articles/AJ201703300048.html>

THE ASAHI SHIMBUN

OSAKA--Kansai Electric Power Co. has admitted to failing to pay part of the overtime wages to about 12,900 employees that account for **60 percent of its entire workforce including part-timers**.

The overtime totaled 1.699 billion yen (about \$15.3 million) for the two-year period through 2016, the Osaka-based company said March 30.

The unpaid wages are scheduled to be paid simultaneously with employees' salaries for April. The average amount of the unpaid wages per person is about 132,000 yen.

The amount for five employees at the head office exceeds 3 million yen each.

Kansai Electric conducted an in-house investigation, checking the work hours of all its 22,400 employees, following investigations into the utility's work practices undertaken by labor inspectors.

In April 2016, a Kansai Electric employee committed suicide. The Tsuruga Labor Standards Inspection Office of the Fukui Labor Bureau ruled the death a suicide resulting from overwork.

The employee was in charge of dealing with screenings for operating the No. 1 and No. 2 reactors of the Takahama nuclear power plant in Fukui Prefecture beyond their basic lifespan of 40 years.

In January this year, the inspection office ordered Kansai Electric President Shigeki Iwane to thoroughly manage the working hours of all employees, including those in managerial positions.

In December 2016, the Tenma Labor Standards Inspection Office of the Osaka Labor Bureau told Kansai Electric that it was not paying part of the overtime wages for six employees working in the company's head office and ordered it to pay the unpaid wages.

In February this year, the Nishi-Noda Labor Standards Inspection Office of the Osaka Labor Bureau rebuked the utility for having two employees at the Kansai Electric Power Hospital work overtime that exceeded the upper limit of monthly overtime in exceptional cases, which is 200 hours a month. The inspection office ordered the firm to rectify the situation.

See also : <http://mainichi.jp/english/articles/20170330/p2a/00m/0na/018000c>

TEPCO & Govt. appeal against damages ruling

March 30, 2017

Govt., TEPCO appeal damages ruling over Fukushima

https://www3.nhk.or.jp/nhkworld/en/news/20170330_23/

Japan's government and Tokyo Electric Power Company, or TEPCO, have appealed a court ruling that they must pay damages to a group of evacuees over the 2011 Fukushima nuclear accident.

The government and TEPCO filed the appeal with the Tokyo High Court on Thursday. The utility operates the crippled Fukushima Daiichi nuclear power plant.

The government and the firm say the decision of the Maebashi District Court, which found them liable for failing to prevent the accident, is unacceptable.

The lower court on March 17th said the defendants could have foreseen the massive tsunami that hit the plant in March 2011 and taken steps to prevent the accident.

The district court in Gunma Prefecture, north of Tokyo, ordered the defendants to pay more than 38 million yen, or about 340,000 dollars, in damages to 62 of 137 plaintiffs.

The plaintiffs had moved to Gunma from Fukushima Prefecture, including areas near the plant.

They claimed that they suffered mental distress from having to evacuate and losing their livelihood.

The ruling was the first handed down in a series of similar suits filed by more than 12,000 people across Japan.

March 30, 2017

Government, Tepco appeal case claiming negligence in nuclear crisis

<http://www.japantimes.co.jp/news/2017/03/30/national/crime-legal/government-tepco-appeal-case-claiming-negligence-nuclear-crisis/#.WN1sqWekJLM>

Kyodo

The central government and the operator of the crippled Fukushima No. 1 nuclear complex on Thursday appealed a court ruling that found them negligent for insufficient measures to deal with tsunami at the plant hit hard by the March 2011 disaster.

The state and Tokyo Electric Power Company Holdings Inc. respectively filed an appeal with the Tokyo High Court over the Maebashi District Court's decision on March 17, the first ruling of its kind since the nuclear crisis following the devastating earthquake and tsunami.

Apart from finding the government and Tepco negligent, the district court awarded a total of ¥38.55 million (\$340,000) in damages to 62 people who fled Fukushima Prefecture, including some who voluntarily evacuated.

The lawsuit was filed by 137 plaintiffs who sought a combined ¥1.5 billion in damages for emotional distress.

The district court had rejected arguments made by the state and operator that it was impossible to prevent the accident even if they had taken preparatory measures.

An official of the Nuclear Regulation Authority said at a news conference that the court's decision about whether the tsunami could have been foreseen and the accident averted was "unacceptable."

Separately, a Tepco official said the utility decided to appeal after "comprehensively evaluating" the ruling, but declined to elaborate. The official said Tepco's arguments will be made known at the high court.

The plaintiffs had claimed the state and Tepco could have foreseen a tsunami over 10 meters high hitting the plant based on a 2002 government estimate that there was a roughly 20 percent chance of a magnitude-8 level tsunami-triggering earthquake occurring within the next 30 years.

NYT on Westinghouse bankruptcy

Toshiba-owned:

Westinghouse Files for Bankruptcy, a Blow to Nuclear Power

By Diane Cardwell & Jonathan Soble, New York Times, March 29 2017

https://www.nytimes.com/2017/03/29/business/westinghouse-toshiba-nuclear-bankruptcy.html?_r=0

Westinghouse Electric Company, which helped drive the development of nuclear energy and the electric grid itself, filed for bankruptcy protection on Wednesday, **casting a shadow over the global nuclear industry.**

The filing comes as the company's corporate parent, Toshiba of Japan, scrambles to stanch huge losses stemming from Westinghouse's troubled **nuclear construction projects in the American South. Now, the future of those projects, which once seemed to be on the leading edge of a renaissance for nuclear energy, is in doubt.**

"This is a fairly big and consequential deal," said Richard Nephew, a senior research scholar at the Center on Global Energy Policy at Columbia University. "You've had some power companies and big utilities run into financial trouble, but **this kind of thing hasn't happened.**"

Westinghouse, a once-proud name that in years past symbolized America's supremacy in nuclear power, now illustrates its problems.

Many of the company's injuries are self-inflicted, such as a **disastrous deal** for a construction business that was intended to control costs and instead precipitated the events that led to the filing on Wednesday. Over all, **Toshiba has been widely criticized for overpaying for Westinghouse.**

Continue reading the main story

But some of what went wrong was beyond either company's control. Slowing demand for electricity and tumbling prices for natural gas have **eroded the economic rationale for nuclear power, which is extremely costly and technically challenging to develop.** Alternative-energy sources like wind and solar power are rapidly maturing and coming down in price. The 2011 earthquake in Japan that led to the nuclear disaster at the Fukushima Daiichi plant **renewed worries about safety.**

Westinghouse's problems are already reducing Japan's footprint in nuclear power, an industry it has nurtured for decades in the name of energy security. **Even before the filing, Toshiba had essentially retired Westinghouse from the business of building nuclear power plants.** Executives said they would instead focus on maintaining existing reactors — a more stable and reliably profitable business — and developing reactor designs.

That has made the already small club of companies that take on the giant, expensive and complex task of nuclear-reactor building even smaller. **General Electric, a pioneer in the field, has scaled back its nuclear operations, expressing doubt about their economic viability.** Areva, the French builder, is mired in losses and undergoing a large-scale restructuring.

Among the winners could be China, which has ambitions to turn its growing nuclear technical abilities into a major export. That has raised security concerns in some countries.

The shrinking field is a challenge for the future of nuclear power, and for Toshiba's revival plans. Its executives have said they would like to sell all or part of Westinghouse to a competitor, but with a

dwindling list of potential buyers — combined with Westinghouse's history of financial calamity — that has become a difficult task.

Toshiba still faces tough questions. The company is also divesting its profitable semiconductor business and plans to sell a stake to an outside investor to raise capital. Most of the companies seen as possible buyers are from outside Japan. Some Japanese business leaders have expressed fears that the sale will further erode Japan's place in an industry it once dominated.

After writing down Westinghouse's value, Toshiba said it expected to book **a net loss of \$9.9 billion for its current fiscal year**, which ends on Friday.

"We have **all but completely pulled out of the nuclear business overseas**," Toshiba's president, Satoshi Tsunakawa, said at a news conference. Of the huge loss, he added, "I feel great responsibility."

Bankruptcy will make it harder for Westinghouse's business partners to collect money they are owed by the nuclear-plant maker. That mostly affects the American power companies for whom it is building reactors, analysts say. Now, it is unclear whether the company will be able to complete **any of its projects, which in the United States are about three years late and billions over budget**.

The power companies — Scana Energy in South Carolina and a consortium in Georgia led by Georgia Power, a unit of Southern Company — would face the possibility of new contract terms, long lawsuits and absorbing losses that Toshiba and Westinghouse could not cover, analysts say. The cost estimates are already running \$1 billion to \$1.3 billion higher than originally expected, according to a recent report from Morgan Stanley, and could eventually exceed \$8 billion over all.

Dennis Pidherny, a managing director at Fitch Ratings who is sector head of the United States public power group, said that it was possible that the company's bankruptcy filing could terminate the contracts and that it could be difficult for the utilities to find another builder to take them over.

"There's still quite a bit of work that needs to be completed," he said. "The biggest challenge there is quite simply **finding another suitable contractor who can complete the contract and have it completed at a quote-unquote reasonable cost**."

That is, if they are constructed at all. Stan Wise, chairman of the Georgia Public Service Commission, said the utilities developing the Alvin W. Vogtle generating station in the state would have to evaluate whether it made sense to continue.

"It's a very serious issue for us and for the companies involved," Mr. Wise said. "If, in fact, the company comes back to the commission asking for recertification, and at what cost, clearly the commission evaluates that versus natural gas or renewables."

In a statement on Wednesday, Toshiba said Westinghouse and affiliated companies were "working cooperatively" with the owners to arrange for construction to continue. In recent days, the affected companies issued statements saying they were monitoring the situation and exploring their options, as did the Energy Department, which has authorized \$8.3 billion in federal loan guarantees for the Georgia project.

"We are keenly interested in the bankruptcy proceedings and what they mean for taxpayers and the nation," said Lindsey Geisler, a Department of Energy spokeswoman. "Our position with all parties has been consistent and clear: We expect the parties to honor their commitments and reach an agreement that protects taxpayers, promotes economic growth, and strengthens our energy and national security."

Toshiba said Westinghouse had total debt of \$9.8 billion. The Chapter 11 bankruptcy filing was made in federal bankruptcy court for the Southern District of New York.

A decade ago, Toshiba was dreaming of a big global expansion when it bought Westinghouse for a surprisingly high \$5.4 billion and made plans to install 45 new reactors worldwide by 2030.

At the same time, **Westinghouse was trying to install a novel reactor design, the AP1000.** Using simplified structures and safety equipment, it was intended to be easier and less expensive to install, operate and maintain. Its design also improves the ability to withstand earthquakes and plane crashes and is less vulnerable to a cutoff of electricity, which is what set off the triple meltdown at Fukushima.

Nonetheless, it was inevitable that expansions at the Vogtle generating station in Georgia and the Virgil C. Summer plant in South Carolina would hit some bumps along the road to fruition, nuclear executives say. Not only was the design new, but, because nuclear construction had been dormant for so long, **American companies also lacked the equipment and expertise** needed to make some of the biggest components and construct the projects.

Indeed, that may ultimately have been at the root of the troubles. The contractor Westinghouse chose to complete the projects struggled to meet the strict demands of nuclear construction and was undergoing its own internal difficulties after a merger. As part of an effort to get the delays and escalating costs under control, Westinghouse acquired part of the construction company, which set off a series of still-unresolved disputes over who should absorb the cost overruns and how Westinghouse accounted for and reported values in the transaction.

In its bankruptcy filing, Westinghouse said that its top 30 unsecured creditors held over \$508 million in claims. Among those creditors are big engineering and construction companies like Fluor and CB&I, and Nuclear Fuel Services, a fuel supplier.

To shepherd its case through Chapter 11, Westinghouse has hired a number of advisers, including the investment bank PJT Partners, the law firm Weil, Gotshal & Manges, and the consulting firm AlixPartners. Westinghouse also said in its bankruptcy filing that it had **taken out an \$800 million loan from a group led by Citigroup to support itself through the bankruptcy process.**

Diane Cardwell reported from New York, and Jonathan Soble from Tokyo. Michael J. de la Merced contributed reporting from New Orleans

Toshiba's failed nuclear gamble

March 30, 2017

Failed gamble leaves Toshiba investors irate

<http://www.japantimes.co.jp/news/2017/03/30/business/corporate-business/failed-gamble-leaves-toshiba-investors-irate/>

Shareholders wary as 'core businesses' falter, debt piles up

by Kazuaki Nagata

Staff Writer

Shareholders of struggling Toshiba Corp. Thursday slammed management for a disastrous plunge caused by the company's failed nuclear gamble, questioning whether the 142-year-old conglomerate can survive the aftermath.

"Do you remember last year's shareholders meeting? (Toshiba said) nuclear power and flash memory would be two core businesses," a Toshiba investor said at an emergency shareholders meeting held in Chiba's Makuhari Messe. "Westinghouse was not a core but a hole, and Toshiba fell right in."

The irate shareholder lamented that a company with a storied history like Toshiba has found itself in a grave financial crisis, with a negative equity position due to massive losses from Westinghouse Electric Co., its U.S. nuclear unit.

The emergency meeting was held to approve the company's plan to spin off its flash memory business into a new firm called Toshiba Memory.

Flash memory, commonly used in smartphones, has been a major profit driver, so Toshiba is looking to gain as much as ¥2 trillion by selling shares of the proposed spinoff to bolster its financial foundation. The plan received a green light at the meeting, but many shareholders who got the chance to speak expressed disappointment and dissatisfaction with the recent debacle.

They criticized the management team for failing to recognize trouble at Westinghouse earlier.

"I understood that Westinghouse was in such a mess," another shareholder said. "But I'm wondering if Toshiba could have been aware of the situation and implemented some measures."

In December, Toshiba announced that it would book a massive impairment loss related to the U.S. nuclear business, since Westinghouse was facing mounting cost overruns as a result of construction delays in Georgia and South Carolina.

"We are deeply sorry to keep causing trouble to our shareholders," Toshiba President Satoshi Tsunakawa said.

Aiming to stem further losses from the overseas nuclear unit, Toshiba announced Wednesday that Westinghouse filed for Chapter 11 bankruptcy protection with \$9.8 billion in liabilities.

Toshiba's net loss for fiscal 2016 may balloon to a staggering ¥1 trillion, since it might have to pay ¥650 billion of parent-company guarantees to the U.S. utility firms that ordered the reactors, the company said.

Tsunakawa vowed to rebuild Toshiba by focusing on social infrastructure and electronic devices.

Shareholders appeared unconvinced.

"My biggest question is that you, Toshiba's executives, came here today with what level of commitment?" one shareholder said. "I don't see high levels of commitment from you."

Another shareholder said that unless Toshiba drastically changes its management team, including the CEO, the company won't be able to rebuild itself.

Cost of Fukushima disaster = triple Govt's estimate

April 1, 2017

Real cost of Fukushima disaster will reach ¥70 trillion, or triple government's estimate: think tank

<http://www.japantimes.co.jp/news/2017/04/01/national/real-cost-fukushima-disaster-will-reach-%c2%a570-trillion-triple-governments-estimate-think-tank/>

Kyodo

A private think tank says the total cost of the Fukushima disaster could reach ¥70 trillion (\$626 billion), or more than three times the government's latest estimate.

In a study Saturday, the Japan Center for Economic Research said costs of dealing with the heavily damaged Fukushima No. 1 nuclear plant run by Tokyo Electric Power Company Holdings Inc. could rise to between ¥50 trillion and ¥70 trillion.

In December, the government estimated the costs would reach roughly ¥22 trillion.

"If costs rise, the public burden could greatly increase. The country's nuclear policy needs to be reviewed," JCER said.

The government's initial expectations pegged the costs at ¥11 trillion.

But a study by the Ministry of Economy, Trade and Industry said that the final figure could turn out to be double the sum estimated in 2013.

Following that, the government decided to raise electricity rates to secure the money needed to cover compensation payments to the evacuees.

According to METI's estimates, the bill for compensation payments will be ¥8 trillion, a figure the JCER decided to adopt.

The JCER, however, estimates the cost of the decontamination work will hit ¥30 trillion, or five times more than the government's estimate of ¥6 trillion. The think tank based this calculation on a presumption that radioactive substances will be disposed of at a nuclear facility in the village of Rokkasho in Aomori Prefecture.

The government is seeking a way to treat radioactive soil and other waste in Fukushima Prefecture that could grow to roughly 22 million cu. meters, but where and how to dispose of it has yet to be decided.

Costs related to this procedure are not included in the government's calculations.

In the meantime, JCER estimates that the cost of decommissioning the crippled reactors, which is expected to take 30 to 40 years, will reach ¥11 trillion. The government's estimate is ¥8 trillion.

JCER also estimates that treating the contaminated water stored in hundreds of tanks at the plant will cost ¥20 trillion unless it is dumped into the ocean after being diluted as recommended by regulators.

Democracy cannot function ...



A demonstration takes place at Hibiya Park in Tokyo in March 2016, at which protesters express their distrust of the government which has failed to listen to the voices of Fukushima nuclear disaster victims. (Mainichi)

April 1, 2017

As I See It: Flawed gov't policies betraying Fukushima disaster victims

<http://mainichi.jp/english/articles/20170401/p2a/00m/0na/002000c>

Six years have passed since the disaster at Tokyo Electric Power Co. (TEPCO)'s Fukushima No. 1 Nuclear Power Plant, and the government's policies for helping affected people are reaching the end of a chapter.

- **【Related】** Mall opens in Fukushima town near disaster-stricken nuclear plant
- **【Related】** Some Fukushima municipalities lack nuclear evacuation plans as no-entry orders lifted
- **【Related】** Robots' limitations exposed in search for melted nuclear fuel in Fukushima

The government provision of housing to voluntary evacuees is coming to an end, and with the exception of a few selected areas, evacuation orders have been lifted or scheduled to be lifted soon. Compensation payments for such evacuees are scheduled to end, too -- as these were given out in tandem with the evacuation orders.

With this kind of reality in mind, the "accelerated recovery" that was promoted by the government now just appears to be a hasty attempt to draw a curtain over the issue of evacuation from Fukushima. Government policies related to evacuation are seemingly one-way, and given that these policies have failed to gain the acceptance of affected residents, it can be said that they are corroding away at the core of democracy.

Over the past few years, I have continued to cover the situation in Fukushima using data such as health surveys, polls of voluntary evacuees, housing policies, and decontamination -- with the aim of chasing after the real intentions of the creators of government policies. And yet, even though the government organizations and bureaucrats that are in charge differ depending on the issue, discussions go on behind closed doors, after which decisions are forced on the public that are completely out of touch with the needs of those affected. These kinds of policymaking procedures are all too common.

There are also cases of double standards. For example, the government had set the maximum annual limit of radiation exposure at 1 millisievert per year for regular people but immediately after the 2011 Fukushima nuclear disaster, the figure was raised to 20 millisieverts per year as the yardstick for evacuation "because it was a time of emergency."

Later, in December 2011, a "convergence statement" was released by then Prime Minister Yoshihiko Noda in which he announced that the "emergency period" was over. Restructuring of the evacuation orders was subsequently carried out, and then the new criteria for relaxing such instructions were discussed in private.

From April 2013 onward, closed-door discussions continued to take place among section chiefs and other officials from organizations such as the Ministry of Economy, Trade and Industry and the Reconstruction Agency. They then waited until after the House of Councillors election in July 2013 to announce that areas where the annual radiation exposure was less than 20 millisieverts per year would be exempted from the evacuation orders. A source told me that the timing of the announcement was set as "not to trouble the government." In other words, the level of 20 millisieverts per year had switched from "the time of emergency level" to "the ordinary level," and it was as though the previous 1 millisievert annual level for ordinary situations had been banished from history.

Nearly four years have passed since then. At an explanatory meeting for evacuees from the Fukushima Prefecture towns of Namie and Tomioka, hardly anyone agreed with the lifting of the evacuation order this coming spring. It's clear in the term "unnecessary exposure to radiation," often used by the Fukushima evacuees, that there is absolutely no reason for local residents to endure radiation exposure caused by the nuclear disaster. And it's understandable that they have difficulties accepting policies that ignore the voices of those from the affected areas.

Another problem is government bodies' practice of blurring responsibilities by deleting inconvenient elements in records of the closed-door decision making process, thereby making it impossible for third parties to review the process afterwards.

The government was planning to complete the majority of the decontamination work by the end of fiscal 2016. In June 2016, the Environment Ministry devised a plan for reusing the contaminated soil whose volume has ballooned due to the cleaning work. In a closed-door meeting with specialists, the ministry also set the upper contamination level limit for reusing the soil at 8,000 becquerels per kilogram. However, with regard to the reuse of waste generated from decommissioning work such as iron, the upper limit is set at 100 becquerels. What officials talked about in that closed-door meeting was how to make that kind of double standard appear consistent.

In June 2016, the Mainichi Shimbun reported this matter, and as a number of freedom-of-information requests were filed, the Environment Ministry decided to release the relevant records. Ministry officials claimed that they were making all the information public. However, they had deleted statements by the bureaucrats in charge; statements that suggested the entire discussion had been undertaken with the 8,000 becquerel limit as a given.

Speaking on the issue of helping affected people, politicians and bureaucrats have repeatedly spouted rhetoric such as "staying beside disaster victims." Despite this, however, there have been cases where senior officials from organizations such as the Reconstruction Agency have shown their true feelings through abusive statements via social media such as Twitter. In August 2015, Masayoshi Hamada, the then state minister for reconstruction, stated in private about the housing provision for Fukushima evacuees, "Basically, we are accepting residents based on the assumption that we don't support those who evacuated voluntarily."

Hamada was promoted to the position of state minister in December 2012 -- at the same time as the launch of the second Cabinet of Prime Minister Shinzo Abe -- and he was put in charge of supporting voluntary evacuees. For these evacuees, the housing provision policy was anticipated the most. Hamada's irresponsible remarks, however, were almost equal to saying that the agency had no real intention of helping those who had evacuated of their own accord. I cannot help but wonder if politicians such as Hamada do in fact want to "stay beside disaster victims."

The victims of the Fukushima nuclear disaster have always been kept on the other side of the mosquito net. The majority of policy discussions among the state and local governments concerning the affected people have taken place behind closed doors, and the records that have been released afterward have often been censored in order to conceal certain elements, with excuses such as "making these documents public could cause confusion." In some of those closed door meetings, officials even talked about "how not to leak information."

It might be stating the obvious, but **unless information concerning policies is made public and there is transparency surrounding the decision making process, democracy cannot function. The way that the government has one-sidedly carried out its national policies by ignoring the voices of the Fukushima disaster victims, as well as people across Japan, poses risks to the very foundation of democracy. In some ways, this is one major part of the damage caused by the nuclear disaster.** (By Kosuke Hino, Special Reports Group)

TEPCO's new president

April 3, 2017

TEPCO's newly appointed president vows reform to revive business

<http://mainichi.jp/english/articles/20170403/p2g/00m/0dm/071000c>

TOKYO (Kyodo) -- The newly appointed president of Tokyo Electric Power Company Holdings Inc. said Monday he will push through reforms to put business back on track, while fulfilling the responsibility over the disaster at its nuclear power plant in Fukushima Prefecture in 2011.

"We will carry out reforms and contribute to the development of the energy industry. We will also work to reconstruct our business to meet the expectations of the people of Fukushima and our customers,"

Tomoaki Kobayakawa said in a press conference also attended by current President Naomi Hirose, who has served in the post since 2012 and will be replaced by Kobayakawa in June.

TEPCO has decided to revamp its top management to seek a breakthrough in its stalling turnaround plan, with massive costs stemming from the disaster at the Fukushima Daiichi nuclear complex continuing to weigh heavily on the company.

Among 13 directors slated to replace the current members following the annual general shareholders meeting in late June, 10 have been newly appointed. Takashi Kawamura, honorary chairman of Hitachi Ltd., will serve as new chairman to back the new president.

Kobayakawa, as the head of Tokyo Energy Partner Inc., TEPCO's electricity retail arm, has worked through the increasing competition in the power sector amid the full liberalization of Japan's electricity retail market, which brought an end to regional monopolies on power supply.

Kawamura said the utility needs to undergo a "different level of reforms" to secure enough funds to deal with one of the world's worst nuclear crises that resulted in nuclear fuel meltdowns at three reactors.

The company has been seeking to revive its business after being placed under effective state control in exchange for a 1 trillion yen (\$9 billion) capital injection in 2012. But disaster cleanup costs have continued to rise, with the latest estimate reaching 22 trillion yen -- twice the sum earlier expected.

In the outline of a new business turnaround plan announced on March 22, the company said it aims to realign and integrate its nuclear and power transmission and distribution businesses with other utilities to improve its profitability.

But other utilities are believed to be cautious about such tie-ups, as they are concerned about possible intervention by the government, which holds the majority of TEPCO's voting rights through a state-backed bailout fund.

Kawamura expressed hope Monday that realignment moves will accelerate, while adding that the company will seek to reactivate its Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture on the Sea of Japan coast despite public concern over the safety of nuclear power.

"We want to take time in sincerely communicating (with the local people) that we will place top priority on safety," Kawamura said.

Kobayakawa, meanwhile, was not clear on whether the Fukushima Daini nuclear power plant, located around 12 kilometers south of the crippled Fukushima Daiichi, would be scrapped.

Hirose will take up the new post of vice chairman, which is not a board member, responsible for disaster compensation payments.

Recalling the five years as president, Hirose said, "There have been a series of problems and incidents I had to apologize for."

See also : <http://www.japantimes.co.jp/news/2017/04/03/business/corporate-business/tepcos-newly-appointed-president-vows-revive-business-take-responsibility-fukushima/>

Many new utilities don't want to shoulder the cost of nuclear crisis

April 2, 2017

60% of new utilities object to helping pay Fukushima compensation

<http://www.japantimes.co.jp/news/2017/04/02/national/60-new-utilities-object-helping-pay-fukushima-compensation/>

Kyodo

More than 60 percent of major new entrants to the electric power industry object to the government's plan for them to shoulder some of the compensation costs stemming from the Fukushima nuclear crisis, a recent Kyodo News survey showed.

Of the 44 utilities surveyed, 29 said the plan by the Ministry of Economy, Trade and Industry could have a negative impact on their businesses or prevent liberalization of the retail electricity market.

Last April, Japan freed up the retail electricity market, ending the decades-long monopoly of Japanese regional power companies. The new entrants are those that joined the industry after the liberalization of the market and are expected to promote competition, paving the way for lower electricity bills and new services.

But the ministry decided in November last year on a plan to let the utilities share the burden of the aftermath of the nuclear crisis at Tokyo Electric Power Company Holdings Inc.'s Fukushima No. 1 nuclear power plant, devastated by meltdowns triggered by the 2011 earthquake-tsunami disaster. Meanwhile, 70 percent of the new entrants said they were able to win customers as planned or even more. The survey shows that while the liberalization of the market has proceeded relatively smoothly, systematic problems remain.

A total of 266 companies were registered as new electricity retailers as of March last year. The newcomers include gas suppliers such as Tokyo Gas Co. and Osaka Gas Co., major oil refiner JX Nippon Oil & Energy Corp., telecommunications service provider KDDI Corp. and railway company Tokyu Corp.

Kyodo News sent questionnaires to 50 major new retailers of which 44 responded.

About the ministry's plan, 13 retailers said that it will have negative effects on their business, while 16 said the plan will have certain effect on the business. Only one company said that it did not expect any effects.

The ministry has deemed users should shoulder their share of the burden as they have widely benefitted from nuclear power before the crisis but 18 companies said they did not agree with the ministry.

A total of 30 companies said that the number of customers they have acquired so far reached or topped initial goals while 11 said that they were not able to win customers as expected.

The survey found that 41 companies were satisfied that they had entered the electricity retail market because they were able to connect well with customers which contributed not only in boosting profitability but also in enhancing the recognition of the companies. No company said it regretted entering the market.

On future management, 18 said they will expand their business operations while 8 companies said they will maintain the status quo. No companies said they will pull out of the market or consider scaling down operations.

Meanwhile, Japan's energy sector saw more deregulation with the city gas market freed up Saturday, allowing major utilities to enter the market and enhance competition with gas company rivals in the industry.

Utilities including Chubu Electric Power Co. and Kansai Electric Power Co. have launched special websites introducing their lower gas price plans.

But compared with the liberalization of the retail electricity market, the gas retail market has attracted fewer entrants.

"Gargantuan risk" involved in nuclear business

April 1, 2017

EDITORIAL: Toshiba debacle highlights huge risks in nuclear power business

<http://www.asahi.com/ajw/articles/AJ201704010032.html>

The high-profile bankruptcy of Toshiba Corp.'s U.S. nuclear subsidiary is graphic evidence of the gargantuan risk involved in the business.

Hefty losses incurred by Westinghouse Electric Co. have plunged the Japanese parent into unprecedented crisis.

Toshiba is expected to post a staggering net loss of 1 trillion yen (\$9 billion) for the year through March, the biggest red ink ever for a Japanese manufacturer.

Westinghouse, which filed for bankruptcy March 29, went belly up under the weight of huge cost overruns at four nuclear reactors it has been building in the United States.

In an effort to protect its bottom line against possible further losses from the U.S. nuclear power business, the Japanese heavy machinery giant will remove the U.S. unit from its consolidated results so it can determine the scale of the losses it needs to write off.

Toshiba is paying dearly for its nuclear power debacle. It will sell off its semiconductor business, its primary cash cow, to cover the losses. It will also pull the plug on most of its overseas nuclear power operations.

Toshiba acquired Westinghouse, which had a solid reputation in the nuclear power industry, in 2006. At that time, atomic energy was attracting renewed global attention due to the technology's reputation as a relatively cheap and eco-friendly power source. There were strong expectations of a global reactor construction boom.

Toshiba spent more than 500 billion yen to acquire Westinghouse in an ambitious bid to catapult itself to the pinnacle of the industry.

The 2011 disaster at the Fukushima No. 1 nuclear power plant radically changed the situation. All of Japan's nuclear reactors were shut down, effectively destroying the prospects for new construction. Nuclear safety standards have been tightened all over the world, causing construction costs of nuclear power plants to rise markedly. The pace of reactor construction elsewhere has also slowed. Despite the harsh business environment, Toshiba's successive management teams remained bullish about the outlook of the nuclear power business. The upshot is the company's current predicament. Top Toshiba executives, both past and present who were involved in decisions that led to this debacle, should be held strictly responsible for their failure to assess accurately the growing risk of the business. Toshiba's woes highlight the broader scope of issues facing the now-struggling nuclear industry in Japan. Two other major heavy machinery makers, Mitsubishi Heavy Industries Ltd. and Hitachi Ltd., manufacture nuclear reactors. The government has been promoting exports of Japanese nuclear power technology as a key element of its strategy to stoke economic growth. All these makers are facing formidable management challenges in the current tough business climate. Mitsubishi Heavy has sharply upped its investment in Areva to support the embattled French nuclear power company, which is its partner in the business. Hitachi is expecting to report a loss of about 65 billion yen related to the joint development of nuclear fuel technology with General Electric of the United States. The three Japanese makers are now talking about merging their nuclear fuel operations. It is said that the three companies realize they will inevitably have to consolidate their core reactor manufacturing operations. The government also needs to reconsider its nuclear power strategy. Late last year, the Japanese and British governments exchanged a memorandum over nuclear power projects that Hitachi and other companies are pursuing in Britain. Japanese government-affiliated financial institutions will consider providing financial support for these projects. But loan losses incurred by such government-affiliated lenders would eventually have to be covered by taxpayers. They need to make careful and rigorous assessments of the risks involved. The outlook for nuclear power projects in emerging countries, which makers expect will become their major customers, are also becoming increasingly murkier. Last year, Vietnam scuttled its plan to build a nuclear power plant based on Japanese technology. There is much international criticism about Japan's efforts to export nuclear power technology in the aftermath of the catastrophic Fukushima accident. Toshiba's costly fiasco should prompt the nation to rethink its nuclear power drive.

Toshiba buying into nukes again

April 5, 2017

Toshiba buying shares of British nuclear firm

https://www3.nhk.or.jp/nhkworld/en/news/20170405_25

Struggling manufacturer Toshiba has announced it will acquire all the shares of a British nuclear subsidiary which is held by a French co-investor.

Toshiba now faces complications in Europe in its attempt to pull out of the nuclear business abroad and turn around its finances.

Toshiba took a 60 percent stake in Britain's NuGeneration in 2014. The remaining 40 percent is owned by major French energy company Engie.

Toshiba had been trying to win orders for a planned nuclear plant in northwest England through its US nuclear unit Westinghouse.

Engie wants Toshiba to purchase Engie's entire stake in NuGeneration after Westinghouse filed for bankruptcy protection in March.

Engie's request is based on an agreement reached at the time of the joint acquisition. Toshiba says the purchase will cost about 140 million dollars.

Toshiba buyout of Engie stake ups doubts over U.K. nuclear project

<http://www.asahi.com/ajw/articles/AJ201704050009.html>

REUTERS

TOKYO/PARIS/LONDON--Toshiba has been forced to buy out French utility Engie from a project to build three nuclear reactors in Moorside, northwest England, adding to strains on the Japanese company's finances and to uncertainty over the project.

Engie said on Tuesday it was exercising its right to sell its 40 percent stake in the NuGen venture to Toshiba following the bankruptcy of the Japanese firm's Westinghouse unit. Toshiba will pay 15.3 billion yen (\$138.5 million) for the stake.

Toshiba is now the sole owner of NuGen, but has said it is looking for more investors to join the \$15-20 billion project or to sell out altogether.

Britain needs to invest in new infrastructure to replace aging coal and nuclear plants set to close in the 2020s, but has struggled to get large projects built, especially nuclear, due to the costs involved.

EDF's 18 billion pound (\$22.5 billion) Hinkley Point C nuclear project in southwest England got the final go-ahead in 2016 after several years of delay, but only after securing backing from the French government.

The British government has been working to attract new investors to NuGen, and some analysts said Engie's departure might make it easier for Toshiba to sell NuGen as a whole.

Korea Electric Power Corp (KEPCO) is a potential investor after its chief executive said last month it was in talks to buy a stake in NuGen.

Britain's energy minister is currently in South Korea for talks on future collaboration between the two countries, including nuclear projects, a government spokeswoman said.

"NuGen has been working tirelessly to bring in additional investment to support the Moorside project," said a spokesman for the venture.

The filing for Chapter 11 bankruptcy protection by Toshiba's U.S. nuclear unit Westinghouse Electric Co last month was as "an event of default" that allowed Engie to exercise its option to sell its stake to Toshiba, the Japanese firm said.

Toshiba added the \$139 million purchase price was equivalent to what Engie had invested in NuGen or the open market value of the stake.

Toshiba paid \$139 million in late 2013 when it purchased a 50 percent stake in NuGen from Spain's Iberdrola.

The Japanese firm said the transaction could cause a writedown of 49.7 billion yen, but this had been already factored in its estimate of a net loss of 1 trillion yen for the fiscal year that ended on Friday.

April 4, 2017

Toshiba to buy Engie's 40 stake in NuGen for \$139 million

<http://www.reuters.com/article/us-engie-m-a-toshiba-idUSKBN1760XP>

Japan's Toshiba Corp (6502.T) said on Tuesday it **will buy French power utility Engie's (ENGIE.PA) 40 percent stake in their British nuclear joint venture NuGen** for 15.3 billion yen (\$138.5 million).

Toshiba currently owns the remaining 60 percent of NuGen, which plans to build three reactors at the Moorside site on the coast of Cumbria and expects electricity generation to start in 2025.

The filing for Chapter 11 bankruptcy protection by Toshiba's U.S. nuclear unit Westinghouse Electric Co late last month is defined as **an event of default that allows Engie to exercise its option to sell its stake to Toshiba**, the Japanese company said.

Engie confirmed its intention to sell its stake in NuGen to Toshiba.

Toshiba said the transaction could cause a writedown of 49.7 billion yen, but this has been already factored in its estimate of a net loss of 1 trillion yen (\$9 billion) for the fiscal year that ended on Friday.

The deal comes as Toshiba has been looking to shut risks from overseas nuclear businesses and to lower its stake in NuGen. Toshiba will continue its consideration to seek new investors and to sell part or all of its stake in NuGen, it said in a statement.

Korea Electric Power Corp (KEPCO) (015760.KS) is in talks to buy a stake in NuGen, chief executive of the South Korean utility has said.

(Reporting by Makiko Yamazaki; Editing by Muralikumar Anantharaman)

Abe in Fukushima

April 8, 2017

Abe visits Fukushima with Imamura, repeats pledge to back 3/11 reconstruction

<http://www.japantimes.co.jp/news/2017/04/08/national/politics-diplomacy/abe-visits-fukushima-imamura-repeats-pledge-back-311-reconstruction/>

JIIJ, Staff Report

NARAHA, FUKUSHIMA PREF. – Prime Minister Shinzo Abe on Saturday renewed the government’s pledge to support Fukushima’s reconstruction as he paid a visit to see how the prefecture’s residents were getting along after the 2011 earthquake, tsunami and nuclear crisis wrecked their lives.

In the morning, Abe visited a livestock farm in the town of Naraha, which was the first to resume shipping raw milk from areas hit with evacuation orders after the triple core meltdown at Tokyo Electric’s Fukushima No. 1 power plant.

“We want to support Fukushima’s efforts to dispel harmful rumors related to the nuclear accident and widen sales channels,” Abe said after sampling some local milk and yogurt.

He then went north to Tomioka, where he told a town gathering that the government will work together with the people of Fukushima to accelerate reconstruction.

In the afternoon, Abe visited the town of Namie, where all evacuation orders were lifted in March except in “difficult-to-return-to” zones with high radiation levels near the crippled plant.

He tasted young lancefish caught during fishing tests in waters where people voluntarily refrained from fishing.

Masahiro Imamura, the minister for disaster reconstruction, accompanied Abe on the trip.

After the Fukushima Prefectural Government terminated financial assistance for housing 26,000 so-called voluntary evacuees on March 31, Imamura came under fire last week for saying that those who cautiously opted to flee areas not designated for evacuation should take responsibility for their decisions. Many do not plan to return.

He withdrew the remarks on Friday.

Speaking to reporters in Minamisoma, Abe said, “The minister has already apologized and I also would like to give an apology.”

He added, “There has been no change in my Cabinet’s policy to promote reconstruction as we stay considerate of the feelings of the affected people.”

Imamura told reporters in Namie: “What is most important is to lift up local communities. I will work hard for that.”

No Olympics in Fukushima!



No Olympics or Paralympics in Radioactive Fukushima!

<image: <https://assets.change.org/photos/5/ll/ks/MXLlkSujQuqeeaq-128x128-noPad.jpg?1460136549>>
 <image: <https://assets.change.org/photos/5/ll/ks/MXLlkSujQuqeeaq-128x128-noPad.jpg?1460136549>>
 Fukushima Fallout Awareness Network

<https://www.change.org/p/no-olympics-or-paralympics-in-radioactive-fukushima>

Children are our most beloved and cherished gift and they are also the most vulnerable to the generational damage of man-made radiation in air, food, soil and water. Around the world children who are currently adolescent and possibly younger are in training to compete at the 2020 Summer Olympics and Paralympics in Japan. Their parents most likely have no idea that some of the venues are near the most devastating and ongoing nuclear and industrial disaster in world history, Fukushima Daiichi.

Source: <http://globalnews.ca/news/2571822/japan-olympics-minister-backs-fukushima-as-host-venue-for-2020/>

<http://in.reuters.com/news/picture/inside-fukushimas-j-village?articleId=INRTR2TVZW>

On March 11, 2016, the fifth anniversary of the Fukushima triple nuclear meltdowns, the Japanese Olympic minister Toshiaki Endo stated to the Associated Press that preliminary **softball and baseball** could be moved from the host city of Tokyo to Fukushima Prefecture. But it gets worse, **now soccer** has been added too. This isn't mere speculation, in fact organizers are developing **J Village**, only a few miles from Fukushima Daiichi, into a **training facility** for Japan's soccer team and possibly more. J Village was used as a **disaster staging and support facility** during the early days of the Fukushima Daiichi nuclear disaster.

Source: <http://www.japantimes.co.jp/sports/2016/01/30/soccer/j-village-to-serve-as-2020-olympic-soccer-training-center/#.VwWPM32A0ko>

SO HOW DID WE GO FROM THE WORLD'S WORST NUCLEAR AND INDUSTRIAL DISASTER TO ONE OF THE VENUES FOR THE 2020 GAMES? In a stunning development in 2013, Japan's Olympic bid was won by Prime Minister Shinzo Abe when he promised the International Olympic Committee (IOC) that "it (Fukushima Daiichi) has never done, and will never do, any damage in Tokyo". Consequently, the IOC and International Paralympic Committee (IPC) are now left to engage in a dangerous game of **bait and switch**

by using venues not only in Tokyo as originally agreed upon, but also in Fukushima Prefecture, not far from the Fukushima Daiichi nuclear disaster site.

Source: <http://www.insidethegames.biz/articles/1015905/how-tokyo-2020-won-its-olympics-and-paralympic-bid-despite-fukushima>

Holding Olympic games in Fukushima Prefecture **will endanger young athletes**. To date there is **no solution** in sight to the ongoing radiation releases leaking into air, soil, food and water not only from Fukushima Daiichi but also from areas around the country that have been used for the open storage and incineration of **toxic and radioactive tsunami rubble and garbage**.

The man in charge of decommissioning Fukushima Daiichi, Naohiro Masuda, stated on NHK television in Japan that the **solution** to the radioactive leaks at Fukushima Daiichi “**still needs to be invented**” and appealed for international assistance. Meanwhile, the Japanese government and IOC are planning for children, parents and coaches worldwide to travel to the region for the 2020 Olympics.

Source: <http://www3.nhk.or.jp/nhkworld/english/news/nuclearwatch/20150331.html>

Hundreds of types of radioisotopes are emitted in nuclear accidents, many of which are long-lived and remain hazardous for millions of years. Easily inhaled, they pose a significant danger to everyone in affected environments and certainly to athletes during strenuous competition. Consider these facts:

****There is no safe dose.** Women are 2 times more vulnerable to the harmful effects of ionizing radiation than men; **girls are at 10 times more at risk, boys are 5 times more at risk**. The Biological Effects of Ionizing Radiation 7 (BEIR 7) report states "it is unlikely that a threshold exists for the induction of cancers" meaning that any dose of radiation, no matter how small, carries health risks.

Following the Chernobyl nuclear disaster it became scientifically evident that the **DNA damaging effects** of ionizing radiation are **passed on to future generations**.

Source: <http://www.nirs.org/radiation/radhealth/radhealthhome.htm>

<http://static1.1.sqspcdn.com/static/f/356082/23097333/1373633249137/radchild.pdf?token=tvHeUhkD2v%2BuhKtz620LTq25fEQ%3D>

<http://www.ratical.org/radiation/Chernobyl/HEofC25yrsAC.html>

****Highly radioactive water used to cool Fukushima Daiichi's damaged reactors is leaking and also being intentionally discharged into the Pacific Ocean every day.** In addition, highly radioactive soil and other toxic waste has been moved to locations all over Japan and stored in open fields or incinerated by the ton. In one location, nearly 11 million tons of bagged radioactive garbage, soil and more is accumulating in Tomioka, Fukushima Prefecture.

Source: <http://fukushima-diary.com/2016/03/2029900000-bq-of-cs-134137-leaked-as-contaminated-water-in-fukushima-plant/>

https://www.youtube.com/watch?v=qqTwxa2ir_E <https://www.youtube.com/watch?v=UCP7PFT9coU>

****Radioactive hotspots have been detected in other areas of Japan including Tokyo.** In one case even further south, **in Yokohama**, a petition on behalf of public schools and childcare facilities is pleading for the removal **highly contaminated mud** from rainwater recycling tanks, school roofs and gutters.

Source: <https://ssl.form-mailer.jp/fms/b1285961429052>

<https://www.youtube.com/watch?v=IBkrIgJUWLk>

<http://www.fukuleaks.org/web/?p=10688>

****Bioaccumulation and migration of radionuclides** are extremely complex issues. Greenpeace has reported high readings in areas of Fukushima Prefecture where extensive decontamination measures had already been taken by the government. This information has informed local citizens who had been told previously that they could return home.

http://www.greenpeace.org/japan/ja/library/publication/20160304_report/

****Tokyo Electric and Power Company (TEPCO) the owner of Fukushima Daiichi reactors, as of March 2017, has not been able to locate the molten fuel that continues to release significant amounts of radioactive material into the Pacific Ocean. TEPCO is incinerating more than 8 tons of garbage per day, much of it toxic and radioactive, with plans to burn 90% of all waste on site.** It's just one example of an aggressive nationwide incineration campaign underway for several years.

Source: <http://www.neimagazine.com/news/newsnew-incinerator-for-fukushima-waste-4849989>

<http://www.japantoday.com/category/national/view/tepco-group-contracts-kyoto-firms-to-incinerate-iwate-waste>

****TO MARK THE 6th ANNIVERSARY of the ongoing Fukushima disaster, March 11, 2017, nuclear engineer, Arnie Gundersen of Fairewinds Energy Education, provides the most recent update on the condition and near impossible task of "cleaning up" the Fukushima site:**

Source: <http://www.fairewinds.org/fukushima/>

****Drinking water and food** are critical concerns, because **internal contamination** is the most dangerous form of radiation exposure. Trace amounts of radionuclides from Fukushima Daiichi have been found in the tap water of numerous cities, and some samples contain both Cesium 134 and 137. Cumulative trace amounts can pose a significant health problem because there is no safe dose.

Source: <http://www.fukuleaks.org/web/?p=15134>

****Laboratory tests have documented that some of the highest concentrations of radiation from Fukushima Daiichi are airborne which then settle to the ground.** Recent samples from vacuum cleaner bags collected in Japan show readings as high as a shocking 4,454 Becquerel's per kilogram.

Source: http://www.iwakisokuteishitu.com/pdf/e-monthly_data.pdf

****The International Commission on Radiological Protection (ICRP) guideline for the public is 1 millisievert per year compared to Japan's 20 mSv/year since the disaster.** By hosting the Olympics, Japan is willing to expose not only their own citizens but also children, young adults, families and coaches worldwide to higher than publicly acceptable levels of radiation per the ICRP. The emergency guideline of 20 mSv/year was never intended by ICRP to be a long term solution.

Source: [http://www.icrp.org/docs/p111\(special%20free%20release\).pdf](http://www.icrp.org/docs/p111(special%20free%20release).pdf)

Allowing the Olympic and Paralympic games in Fukushima is nothing less than preposterous, because it's impossible to shield children from widespread radioactive contamination. **Even after 30 years, the 30 km area around Chernobyl remains an exclusion zone, yet only 5 years after the Fukushima disaster began there are misguided plans to train young athletes in the town of Nahara at J Village, which is located 19 km (12 mi) from Fukushima Daiichi.**

Source: <http://www.greenpeace.org/international/en/publications/Campaign-reports/Nuclear-reports/Nuclear-Scars/>

<http://kyodonews.net/news/2016/01/30/47883>

Here in the United States, Presidential candidate and Senator Bernie Sanders has stated grave concerns about the dangers of nuclear power and has called for the immediate closure of the Indian Point nuclear reactors near New York City. Now that you know the facts, we petition you to learn as much as possible too and then work to stop **any and all plans that will endanger** athletes, their families and coaches worldwide due to the Fukushima Daiichi ongoing nuclear disaster at the 2020 Olympics and Paralympics. Holding the 2020 Games in Fukushima or in fact anywhere in Japan will not, in reality, make the Fukushima Daiichi humanitarian and environmental crisis go away. It will only spread it much farther afield. **The whole world is watching this very dangerous game.**

Nuclear deal: "Nobody seems to be trying very hard"

April 8, 2017

The nuclear journey from Hiroshima to Pyongyang

<http://www.japantimes.co.jp/opinion/2017/04/08/commentary/nuclear-journey-hiroshima-pyongyang/>

by Jeff Kingston

Barack Obama's bold pledge in Prague back in 2009 to realize a nuclear-free world resonated powerfully in Japan and culminated in his 2016 visit to Hiroshima.

There, the U.S. president said: "We come to mourn the dead, including over 100,000 Japanese men, women and children, thousands of Koreans, a dozen Americans held prisoner. Their souls speak to us. They ask us to look inward, to take stock of who we are and what we might become." In his view, Hiroshima represents an awakening to the need for a moral revolution.

But Obama also justified continued possession of nuclear weapons: "We may not be able to eliminate man's capacity to do evil, so nations and the alliances that we form must possess the means to defend ourselves. But among those nations like my own that hold nuclear stockpiles, we must have the courage to escape the logic of fear and pursue a world without them."

The logic of fear remains resilient. Moreover, there don't appear to be any world leaders inclined to promote a progressive moral revolution. In our world of illiberal democracies, the concept of a moral revolution has been hijacked by strongmen favoring jingoistic agendas, like India's Narendra Modi and Turkey's Recep Tayyip Erdogan. Readers interested in the rise of such strongmen should read Basharat Peer's excellent new work "A Question of Order: India, Turkey and the Return of the Strongmen." This comparative study in atavism shreds hopes for the kind of moral revolution that Obama called for. Across the globe, populists are whipping up fears and primordial instincts in the service of their reactionary agendas. Making nations great again apparently involves a remorseless, unapologetic militant nationalism.

In this unfavorable context for progressive idealism, Japan's hibakusha are not buying their government's capitulation on negotiations to ban nuclear weapons. Toshiki Fujimori, assistant secretary general of the Japan Confederation of Atomic and Hydrogen Bomb Sufferers Organizations (Nihon Hidankyo) testified on March 27 at the United Nations conference in New York, where representatives of 115 countries had gathered to negotiate a legally binding ban on nuclear weapons. Nihon Hidankyo was established in 1956 and has been campaigning ever since to ensure there will be no more hibakusha, lending its unique moral authority to the cause of banning the bomb.

Fujimori, who was 16 months old on Aug. 6, 1945, when the atomic bomb was dropped on Hiroshima, said: "My fourth-eldest sister was 13 years old and was in her first year of an all-girls junior high school. She was around 400 meters from the hypocenter when the bomb was dropped. Together with her teachers and other students, my sister was there to demolish houses to create fire-safe areas against air raids.

"All 676 of them, including my sister, were killed instantly through direct exposure to radiation, the heat, and the blast from the bomb. It is said that altogether in the city of Hiroshima, 8,400 students in the first

and second year of junior high schools were being mobilized for similar purposes.” He added, “Nobody, in any country, deserves to see the same hell on Earth again.”

Fujimori lamented: “Nuclear-weapon states and their allied nuclear-dependent states are against concluding a treaty to abolish nuclear weapons. Despite being the only country in the world that experienced the wartime use of nuclear weapons, the Japanese government voted against established this negotiating conference.”

The moral revolution seems further away than ever with Abe’s abnegation of Japan’s unique position regarding nuclear weapons. Tokyo’s logic is that as long as it depends on the U.S. nuclear umbrella, it can’t really have it both ways. And that umbrella is seen to be ever more necessary in light of North Korea’s intensified nuclear weapons program — which has entailed more than 20 missile tests over the past year and a total of five nuclear tests over the past decade, with another apparently imminent.

Foreign Minister Fumio Kishida explained that outlawing nuclear weapons at a gathering where none of the nations that possess such weapons are in attendance doesn’t make sense. He said Japan needs to be pragmatic, warning that the talks “could also further deepen the rift between nuclear and nonnuclear weapons states.” While Tokyo gives lip service to a world free of nuclear weapons, it remains vague as to how it hopes to reach that goal, fearful of alienating Washington. Preserving harmony in the alliance trumps what is dismissed as a quixotic campaign to outlaw weapons that pose an existential threat to humanity.

On March 30, Hiroshi Imazu, chair of the ruling Liberal Democratic Party’s Research Commission on Security, presented a report to Prime Minister Shinzo Abe that advocates acquiring the capacity for preemptive strikes on North Korean missile sites.

“Japan can’t just wait until it’s destroyed,” Imazu said. “It’s legally possible for Japan to strike an enemy base that’s launching a missile at us, but we don’t have the equipment or capability.” Understood, but how can Japan track Pyongyang’s fast-moving mobile launchers?

Last September, North Korea conducted its fifth nuclear detonation, the third since Kim Jong Un took over the country’s leadership in December 2011. As nuclear weapons expert Siegfried Hecker noted on the website 38 North, “Five tests conducted over a 10-year period, sufficiently spaced that the test results can inform the next test, are deeply alarming.”

He added: “Left unchecked, Pyongyang will likely develop the capability to reach the continental United States with a nuclear-tipped missile in a decade or so. The likely ability of the DPRK (Democratic People’s Republic of North Korea) to put nuclear weapons on target anywhere in South Korea and Japan, and even on some U.S. assets in the Pacific, greatly complicates the regional military picture. That situation would be exacerbated if Pyongyang decides to field tactical nuclear weapons.”

The LDP has long wanted to shed the defensive-only security posture that has prevailed over the past seven decades, and in the spirit of not letting a crisis go to waste, the Abe government is moving toward doing so.

Acting on Imazu’s proposal would mean a significant increase in Japan’s military spending, and much of that would go toward purchases from American defense companies. Given U.S. President Donald Trump’s harumphing about trade deficits, upgrading Japan ballistic missile defense systems and purchases of cruise missiles might be timely multipurpose insurance.

Pyongyang’s nuclear weapons program is triggering a regional arms race where the logic suggests further proliferation, annihilation or both. Isn’t it time to sit down with Kim Jong Un and try to figure out some better scenarios?

Maybe there is no good deal waiting to be made, but nobody seems to be trying very hard to make one. Jeff Kingston is the director of Asian Studies, Temple University Japan.

Imamura apologises

April 7, 2017

Rebuild minister says sorry as 28,000 demand his resignation

By NORIYOSHI OTSUKI/ Senior Staff Writer

Under-fire minister Masahiro Imamura apologized and mostly retracted the remarks he made over so-called voluntary evacuees at a tense April 4 news conference in Tokyo, as thousands of protesters demanded his resignation.

Imamura, who is in charge of rebuilding from the Fukushima nuclear disaster, offered the late apology on April 6 after facing fierce criticism from Fukushima evacuees and political rivals.

The same day, four Fukushima evacuees' groups and their supporters jointly submitted a petition with 28,127 signatures to the Reconstruction Agency in the capital, calling for Imamura's resignation as the head of the agency.

When asked about the government's responsibility for providing assistance to the voluntary evacuees at the news conference, Imamura had said: "They are responsible for their lives. They can file a lawsuit or do other things (if they disagree with the central government's position)." He also shouted at a freelance journalist who pressed him on the issue

He apologized for his outburst to reporters on the evening of April 4, but did not retract his remarks, saying he had made an "objective statement."

However, Imamura made a U-turn on the morning of April 6 and offered his "sincere apologies" for his words on voluntary evacuees at a meeting for the Lower House's Special Committee for Reconstruction after the Great East Japan Earthquake.

Imamura asked permission to speak at the beginning of the meeting, and offered a further apology to the freelance journalist he had snapped at and for becoming "emotional" at the news conference, and then explained the other remarks that landed him in hot water.

"'Their own responsibility' was not the right way of saying it," the minister said. "I meant to say that they have made their own judgment (not to return)."

Addressing his remark suggesting that evacuees can take legal action if they are unhappy with the government's decision on the matter, he explained that he was merely "generally speaking" that "asking a court's decision is an option when an agreement cannot be reached (between two parties)."

Protests against Imamura by Fukushima evacuees began in front of the Reconstruction Agency building on April 5.

The letter accompanying the petition handed on April 6 read, "His remark suggested the nation is renouncing responsibility (to help evacuees), and trampled on evacuees' feelings."

Referring to a law passed to support all nuclear disaster victims, the letter continued, "As the minister of the agency responsible, we must question his quality."

A law has been enacted to support the lives of children and other victims of the Fukushima No. 1 nuclear plant accident regardless of the decisions that victims make about their own futures, such as whether to move permanently or temporarily, or return to their homes in the affected area.

Asked by an opposition party member for his position on the resignation demand, Prime Minister Shinzo Abe gave Imamura his backing.

"I would like him to keep working hard for the speedy rebuilding of the disaster-hit area," Abe said at the Lower House plenary session on April 6.

Angry minister unfit for his charge

April 7, 2017

Editorial: Reconstruction minister unfit for his position

<https://mainichi.jp/english/articles/20170407/p2a/00m/0na/012000c>

The minister in charge of Japan's recovery from the 2011 Great East Japan Earthquake, tsunami and the ensuing nuclear disaster, is under fire for saying at an April 4 news conference that "voluntary evacuees" from the Fukushima nuclear disaster are "self-accountable" for their actions, as if to exonerate the government from its responsibility.

- **【Related】** Reconstruction minister under fire over no responsibility for 'voluntary evacuees' remarks
- **【Related】** Abe spurns calls for minister to quit over Fukushima evacuee gaffe

The gaffe by Reconstruction Minister Masahiro Imamura came in response to a reporter's question about his views on the government's responsibility for voluntary evacuees. He responded, "They are self-accountable (for their actions). It's up to them."

In the wake of the March 2011 nuclear meltdowns at the Fukushima No. 1 Nuclear Power Plant, more than 20,000 residents of Fukushima Prefecture voluntarily evacuated from their hometowns located outside government-designated no-go zones, according to a tally by the Fukushima Prefectural Government. Despite the high figure, the prefectural government terminated rent subsidies for voluntary evacuees as of the end of March.

Imamura's remarks come in the face of a financial predicament for those who choose to stay away from areas affected by the nuclear catastrophe. It is only natural that protests over the minister's insensible remarks and calls for his resignation have stormed the country.

The minister stated that evacuees' decision on whether or not to return to their hometowns is up to them. When asked by a reporter whether the government was going to take responsibility for those who left their hometowns voluntarily, he replied that if they are dissatisfied, "they can go to court or whatever." This nonchalant response appears to betray his honest feelings about the issue.

When the reporter continued his questions, Imamura lashed out, saying, "Get out," and "Shut up." Such an attitude from the minister, who doubles as minister in charge of Comprehensive Policy Coordination for Revival from the Nuclear Accident at Fukushima, is appalling.

Voluntary evacuees didn't evacuate by choice; they are the victims of the country's unprecedented nuclear catastrophe. The prefectural government insists that the termination of rent subsidies is aimed at promoting their return to their hometowns, but some evacuees cannot go home because they have landed

new jobs elsewhere or because their children attend schools in those areas. Many households have a hard time making ends meet, and there are evacuees who remain concerned about radiation.

Overlooking this situation, Imamura talked about self-accountability with an air of indifference, as if to say it couldn't be helped if evacuees "selfishly" evacuate and opt not to return. Who on earth could call him a minister who stands by disaster victims?

In a class action lawsuit brought by evacuees from Fukushima Prefecture, Gunma Prefecture and other areas, the Maebashi District Court recognized the government's negligence in the nuclear disaster, but granted a far smaller amount of compensation to plaintiffs than they had demanded. In the meantime, some municipalities have decided to continue financially supporting voluntary evacuees from their own coffers. This could widen the economic gap among evacuees depending on where they live.

The very least the government must do is to address the situation and extend support to voluntary evacuees. Yet Imamura's astonishing remarks give a wide impression that the government ultimately desires to cast aside nuclear evacuees as soon as possible.

The Cabinet of Prime Minister Shinzo Abe appears to have marginalized the post of reconstruction minister. At a government-held memorial ceremony for the victims of the Great East Japan Earthquake in March this year, Prime Minister Abe stopped short of referring to the "nuclear disaster" in his speech -- which met a backlash from the Fukushima governor and others. The latest gaffe by Reconstruction Minister Imamura represents just how little weight the Abe government has placed on the ongoing nuclear crisis.

April 6, 2017

EDITORIAL: Angry Imamura not sympathetic to Fukushima evacuees

<http://www.asahi.com/ajw/articles/AJ201704060022.html>

Masahiro Imamura, the minister in charge of rebuilding from the 2011 Fukushima nuclear disaster, doesn't seem to have a sufficient grasp of the complicated situation in which Fukushima evacuees are trapped.

Asked about the government's responsibility for providing assistance to the so-called voluntary evacuees at an April 4 news conference in Tokyo, Imamura said: "They are responsible for their own lives. They can file a lawsuit or do other things (if they disagree with the central government's position)."

He was referring to people who fled areas that were not subject to the government's evacuation orders issued after the catastrophic accident broke out at the Fukushima No. 1 nuclear power plant.

When a journalist repeatedly asked questions about the way the government provides support for such people, Imamura became enraged and stormed out of the news conference.

Later he apologized to reporters for becoming "emotional," but did not retract his earlier remarks, saying he made an "objective statement."

The minister apparently tried to point out differences in the situation between people ordered to evacuate their homes and those who voluntarily left their towns and cities. But his remarks included some elements that raise questions that are too important to be ignored.

Many of these voluntary evacuees decided to leave their communities after a lot of thinking as they found it impossible to get rid of their anxiety about the radiation level standards used by the government to issue evacuation orders.

More than 20,000 people are living as such voluntary evacuees across the nation. Many of these have been separated from other members of their families. Some are suffering from destitution.

They receive far less compensation from Tokyo Electric Power Co., the operator of the crippled nuclear plant, and far less support from the government in terms of temporary housing and other aspects than people who received evacuation orders.

Even if they decided to leave their homes on their own, the fact remains that they are also victims of the nuclear accident.

Saying they are responsible for their own decisions indicates a disturbing lack of understanding of the responsibility the government should bear due to its long history of promoting nuclear power generation as a national policy.

His statement that voluntary evacuees can file a lawsuit if they choose to is nothing but an outrageous outburst of arrogant defiance.

More than 10,000 people affected by the nuclear disaster have filed lawsuits seeking compensation from the electric utility and the government.

In March, the Maebashi District Court issued a ruling holding the government and the utility accountable for the disaster and ordering them to pay compensation to evacuees.

But taking such a legal action requires a lot of time and trouble. Does the minister say the victims should shoulder this heavy burden?

Imamura has a history of making controversial remarks that are criticized for being out of tune with the feelings and realities of victims of the nuclear disaster.

Speaking in a January meeting about the reconstruction of Fukushima, which is finally beginning to make significant progress with the recent lifting of the evacuation orders for certain areas, Imamura said the process had reached the 30-kilometer mark, using a marathon metaphor.

Appearing in a TV program in March, he said, "It is easy for people to leave their homes, but I hope the evacuees will show their commitment to returning home and hang in there."

Only a minority of Fukushima evacuees have decided to return home. Many are opting to remain living as evacuees for the time being because of concerns about their livelihoods and radiation.

Many evacuees, however, also express their desires to maintain connections with their homes.

Imamura's latest remarks have hurt the feelings of many evacuees struggling with various difficult problems and deserve to be criticized for not giving sympathetic attention to victims.

He should be aware of the government's responsibility for paying serious attention to the diverse voices of disaster victims and taking necessary steps in response to their needs in addition to making efforts to help evacuees return home.

Liberalization not so popular with people

April 8, 2017

Only 5.5% of households changed power companies after electricity market's liberalization in 2016

<http://www.japantimes.co.jp/news/2017/04/08/business/corporate-business/5-5-households-changed-power-companies-electricity-markets-liberalization-2016/>

Only 5.5 percent of households switched to new electricity suppliers after Japan's retail power market was liberalized in April 2016, industry data shows.

As of the end of March, the number of households that had applied to change power suppliers totaled 3,427,900, or 5.5 percent of all households with electricity contracts.

The ratio was higher in urban regions where competition is stiffer.

At the national level, moves to ditch traditional power companies for new entrants haven't gained much momentum yet.

In the Tokyo metropolitan area, 1.81 million customers, or 7.9 percent, abandoned Tokyo Electric Power Company Holdings Inc., the highest ratio of all regions. Some 700,000 households switched to Tokyo Gas Co. for the electricity.

In and around Osaka Prefecture, about 720,000 households, or 7.2 percent of the total, dropped Kansai Electric Power Co. for another utility.

In other regions, the defection ratios were lower at about one to two percent. These include the areas served by Tohoku Electric Power Co. Hokuriku Electric Power Co., Chugoku Electric Power Co. and Shikoku Electric Power Co.

Power bills, however, did not fall substantially except in urban regions. The nationwide average of the differences in the monthly rates for an average household was estimated at less than ¥250 in September.

"Competition is unlikely to intensify very much over the coming year or two, except in some of the big-city areas," S&P Global Ratings Japan Inc. analyst Hiroki Shibata said. "Prices are unlikely to fall markedly."

New entrants procure electricity mainly from other companies because they do not have large-scale power plants. Industry people say it is important to make wholesale electricity trading active so industry players can buy power at lower costs.

No it is not a joke

April 12, 2017

Fukushima's Upcoming Olympics

<http://www.counterpunch.org/2017/04/12/fukushimas-upcoming-olympics/>

by Robert Hunziker

Japan will hold soccer and baseball events in Fukushima Prefecture for the Tokyo 2020 Olympics. This is not a spoof. Effective March 2017, the Japan Football Association displaces Tokyo Electric Power

Company's emergency operations center at J-Village, the national soccer training center before the nuclear meltdown occurred.

To naysayers that say this is a joke, the answer is 'no this is not a joke'. It is absolutely true Olympic events will be held in Fukushima Prefecture, thereby casting aside any and all concerns about the ongoing nuclear meltdown; after all that's history.

Or, is it?

Here is the announcement as carried in The Japan Times some months ago: "The men's and women's national soccer teams for the 2020 Tokyo Olympics will use the J-Village national soccer training center, currently serving as Tokyo Electric Power Co.'s forward base in dealing with the Fukushima nuclear crisis, as their training base, the Japan Football Association revealed Saturday."

For those who missed the past few classes, Fukushima is home to the worst industrial accident in human history as three nuclear reactors experienced 100% meltdown, the dreaded "China Syndrome." Molten core, or corium, in all of the reactors, highly radioactive and deadly, frizzles robots. Tokyo Electric Power Company (TEPCO) says it may take 40 years to clean up the disaster zone, but that is a wild guess. Nobody on planet Earth has any idea where the radioactive molten cores are, within the reactor containment vessels or burrowed into the earth, and/or what happens next, e.g., there's speculation that Unit #2 is rickety and could collapse from another big earthquake (Japan is riddled with earthquake zones, experiencing an earthquake on average every day) thus collapsing, which leads to an untold, massive disaster, rendering the city of Tokyo uninhabitable.

According to Dr. Shuzo Takemoto, Engr. / Kyoto University, February 2017: "The Fukushima nuclear facility is a global threat on level of a major catastrophe... The problem of Unit 2... If it should encounter a big earth tremor, it will be destroyed and scatter the remaining nuclear fuel and its debris, making the Tokyo metropolitan area uninhabitable."

Numerous efforts by TEPCO to locate the melted cores have been useless. As of recently: "Some Nuclear Regulation Authority members are skeptical of continuing to send robots into reactors in the crippled Fukushima No. 1 plant to collect vital data on the locations of melted nuclear fuel and radiation levels... investigations utilizing robots controlled remotely generated few findings and were quickly terminated" (Source: Nuke Watchdog Critical as Robot Failures Mount at Fukushima Plant, The Asahi Shimbun, March 24, 2017).

All of which inescapably brings to mind the following question: How could anybody possibly have the audacity to bring Olympic events to the backyard of the worst nuclear meltdown in history whilst it remains totally 100% out of control?

Answer: Japan's PM Shinzō Abe and the International Olympic Committee (IOC).

According to Naohiro Masuda, the head of decommissioning, TEPCO does not know how to decommission the nuclear facilities. Meanwhile, ongoing radiation is a constant threat to air, soil, food, and water, e.g., state inspectors have discovered deadly high levels of cesium pooling at the base of Fukushima's 10 big dams that serve as water reservoirs (drinking water and agriculture). For example, Ganbe Dam 27,533 Bq/kg and Mano Dam at 26,859 Bq/kg whereas Japan's Environment Ministry's safe limit for "designated waste" is set at 8,000 Bq/kg. That limit is for "waste," not drinking water. (Source: High Levels of Radioactive Cesium Pooling at Dams Near Fukushima Nuke Plant, The Mainichi – Japan's National Daily Since 1922, September 26, 2016.)

Japanese officials are ignoring the extraordinarily high levels of cesium at the bottom of the dam reservoirs because the top water levels do meet drinking water standards. The prescribed safe limit of radioactive cesium for drinking water is 200 Bq/kg. A Becquerel ("Bq") is a gauge of strength of

radioactivity in materials such as Iodine-131 and Cesium-137. As it happens, Cesium-137 is one of the most poisonous substances on the face of the planet.

Additionally, open storage and incineration of toxic and radioactive rubble is ongoing throughout the prefecture. In fact, the entire prefecture is a toxic warehouse of radioactive isotopes, especially with 70% of Fukushima consisting of forests never decontaminated, yet the Abe administration is moving people back to restricted zones that Greenpeace Japan says contain radioactive hot spots.

According to Greenpeace Japan, which has conducted 25 extensive surveys for radiation throughout Fukushima Prefecture since 2011: “Unfortunately, the crux of the nuclear contamination issue – from Kyshtym to Chernobyl to Fukushima- is this: When a major radiological disaster happens and impacts vast tracts of land, it cannot be ‘cleaned up’ or ‘fixed’.” (Source: Hanis Maketab, Environmental Impacts of Fukushima Nuclear Disaster Will Last ‘decades to centuries’ – Greenpeace, Asia Correspondent, March 4, 2016).

With the onset of the Fukushima Daiichi meltdown, the Japanese government increased the International Commission on Radiological Protection guidelines for radiation exposure of people from 1 millisievert (mSv) per year up to 20 mSv/yr. As such, according to the standards set by the International Commission on Radiological Protection, ICRP Publication 111, Japan’s Olympics will expose Olympians and visitors to higher than publicly acceptable levels of radiation. After all, the emergency guideline of 20 mSv/yr was never meant to be a long-term solution.

With the onset of Olympic venues in Fukushima, maybe that will open the way for the 2024 Olympics in Chernobyl. But, on second thought that will not work. Chernobyl’s Exclusion Zone is 1,000 square miles (off limits for hundreds, maybe thousands, of years) because of an explosion in one nuclear power plant that is now under control whereas Fukushima has three nuclear meltdowns that remain, to this day and into the unforeseeable future, radically out of control and extremely hazardous.

Mystifying and Confusing?

Yes, it’s mystifying and confusing, but the games go on.

Join the debate on Facebook

Robert Hunziker lives in Los Angeles and can be reached at roberthunziker@icloud.com

Not wanted: 46 million dollars in subsidies to create jobs for locals

April 13, 2017

Firms give up inroads to 2011 disaster areas

https://www3.nhk.or.jp/nhkworld/en/news/20170413_06/

Japan’s Board of Audit has found that **nearly half of the firms that were granted state subsidies in exchange for making inroads into areas hit by the 2011 disaster have given up their efforts.**

The Japanese government earmarked up to **nearly 46 million dollars in subsidies** to companies that will be building factories and other facilities in the prefectures of Iwate, Miyagi, and Fukushima.

They were worst-hit by the earthquake and tsunami 6 years ago. Fukushima also suffered the after-effects of a nuclear disaster.

The scheme seeks to create jobs for local residents.

The Board of Audit studied the situation as of March 2016. It learned that 232 firms, accounting for 45 percent of the companies that were granted subsidies, had ultimately backed off from their plan.

Officials say **in many cases, the firms were unable to secure land or a workforce due to the slow pace of recovery.**

In tsunami-hit cities, including Kesennuma, Miyagi Prefecture, and Miyako, Iwate Prefecture, more than 70 percent of the firms declined the offer.

As a result, **the opportunity to create more than 2,700 jobs has gone unrealized.**

Industry ministry officials who are in charge of the subsidy program have expressed disappointment.

They say they will examine the plans of firms that apply for grants more carefully to make sure the money will not go unspent.

Japan Atomic Power and Exelon

April 14, 2017

Japan Atomic Power, Exelon set up joint venture

https://www3.nhk.or.jp/nhkworld/en/news/20170414_26/

Japan Atomic Power has set up a joint venture with a US utility, Exelon, to strengthen its overseas operations. The move comes at a time when the nuclear business is facing difficulties as a result of the accident at the Fukushima Daiichi power plant in 2011.

The new company will advise operators on maintenance and efficient methods of power generation for nuclear plants that will be built overseas.

It will start off by assisting Japanese electronics firm Hitachi with its plan to build a nuclear facility in Britain.

The Managing Director of Japan Atomic Power, Takahiko Hida, will head the joint venture. He says the company plans to help with staffing and providing advice on the UK market.

Japan Atomic Power is currently not selling electricity.

It has 3 nuclear power plants in Japan, but their operations have been halted. One of the plants is ready to be decommissioned.

Towards nuke extinction?

April 14, 2017

Nuclear Giants Limp Towards Extinction

<http://www.ecowatch.com/nuclear-energy-collapse-2360633461.html>

By Paul Brown

14 April 2017 - Any lingering hope that a worldwide nuclear power renaissance would contribute to combating climate change appears to have been dashed by U.S. company Westinghouse, the largest provider of nuclear technology in the world, filing for bankruptcy, and the severe financial difficulties of its Japanese parent company, Toshiba.

After months of waiting, Toshiba still could not get its auditors to agree to its accounts this week. But it went ahead anyway and reported losses of nearly \$5 billion for the eight months from April to December, in order to avoid being delisted from the Japanese stock exchange.

The company admitted it too could face bankruptcy, and is attempting to raise capital by selling viable parts of its business.

In a statement, it said: "There are material events and conditions that raise substantial doubt about the company's ability to continue as a going concern."

Nuclear Reactors

The knock-on effects of the financial disasters the two companies face will be felt across the nuclear world, but nowhere more than in the UK, which was hoping Westinghouse was about to start building three of its largest nuclear reactors, the AP 1000, at Moorside in Cumbria, northwest England.

The UK's Conservative government will be particularly embarrassed because, in late February, it won a critical parliamentary by-election in the seat that would be home to the Moorside plant, on the guarantee that the three reactors would be built—a pledge that now seems impossible to keep.

"I think the day of the large-scale nuclear power station is over," said Martin Forwood, campaign co-ordinator for Cumbrians Opposed to a Radioactive Environment. "There is no one left to invest anymore because renewables are just cheaper, and these prices are still going down while nuclear is always up." Toshiba and Westinghouse are in deep trouble because the reactors they are currently building—the same design as the ones planned for Cumbria—are years late and billions of dollars over budget. Even if the companies can be refinanced, it seems extremely unlikely they would risk taking on new reactor projects.

Both the UK and Toshiba have looked to the South Korean nuclear giant KEPCO to take over the Moorside project, but the company is unlikely to want to build the Westinghouse design and would want to put forward its own reactor, the APR 1400.

This would delay the project for years, since the whole safety case for a new type of reactor would have to be examined from scratch.

But the company is already under pressure from within South Korea, where Members of Parliament have urged KEPCO not to take on a risky project in the UK. Twenty-eight members of the Republic of Korea's "Caucus on Post-Nuclear Energy" have called on KEPCO not to invest in Moorside.

The other nuclear giant present in Britain, the French-owned Électricité de France (EDF), is in serious difficulties of its own. It is already deep in debt and its flagship project to build a prototype 1,600 megawatt reactor at Flamanville in northern France is six years behind schedule and three times over budget at €10.5 billion.

Originally due to open in 2012, its start date is now officially the end of 2018, but even that is in doubt because an investigation into poor quality steel in the reactor's pressure vessel is yet to be completed. Despite this, the company and the UK government are committed to building two more of these giant reactors in Somerset in southwest England, and have started pouring concrete for the bases to put them on. These reactors are due to be completed in 2025, but nobody outside the company and the UK government believes this is likely.

So, with troubles of its own, EDF is in no position to help Toshiba out of its financial difficulties. In the nuclear world, this leaves only the Chinese and the Russians who might be capable of taking on such a project.

The Russians will be ruled out on political grounds, and the Chinese are already helping out EDF with a large financial stake in the Somerset project. They also want to build a nuclear station of their own design at Bradwell in Essex, southeast England—another project that looks likely to take more than a decade to complete.

Vast Capital Costs

The problem for all these projects, apart from the vast capital cost and the timescales involved, is that the energy industry is changing dramatically. Solar and wind power are now a cheaper form of producing electricity across the world, and are less capital-intensive and quicker to build.

Despite the fact that there are more than 430 nuclear reactors in operation worldwide and the industry still has great economic and political clout, it is beginning to look like a dinosaur—too big and cumbersome to adapt to new conditions.

Nuclear power now produces about 10 percent of the world's electricity, while 40 percent is from coal and 23 percent from renewables. The rest is mainly from natural gas.

"Nuclear lobbyists are abandoning the tiresome rhetoric about a nuclear power renaissance," said Jim Green, national nuclear campaigner with Friends of the Earth Australia. "They are now acknowledging that the industry is in crisis."

"The crisis-ridden U.S., French and Japanese nuclear industries account for half of worldwide nuclear power generation," he continued. "Renewable energy generation doubled over the past decade, and strong growth, driven by sharp cost decreases, will continue for the foreseeable future."

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Genkai plant: Saga governor OKs restart

April 24, 2017

Saga governor agrees to Genkai reactor restart

https://www3.nhk.or.jp/nhkworld/en/news/20170424_23/

The governor of Saga Prefecture, southwestern Japan, has announced his approval of a plan to restart 2 nuclear reactors in the prefecture.

Governor Yoshinori Yamaguchi told reporters on Monday that the Number 3 and 4 reactors at the Genkai nuclear plant would be scheduled for restart. It is the fourth such approval granted by a prefectural

government after meeting the country's new safety standards put into place after the March 2011 nuclear disaster.

Genkai Town, the power plant's host municipality, also gave its approval last month.

But the reactors will not be restarted until this fall at the earliest.

The Nuclear Regulation Authority must give its approval for the restart and carry out required inspections.

Governor agrees to Genkai reactor restart

https://www3.nhk.or.jp/nhkworld/en/news/20170424_25/

The governor of Saga Prefecture, southwestern Japan, has announced his approval for a plan to restart two nuclear reactors within the prefecture.

Governor Yoshinori Yamaguchi told reporters on Monday that the Number 3 and 4 reactors at the Genkai nuclear plant would be scheduled for restart. It is the fourth such approval granted by a prefectural government after meeting the country's new regulations. These were put into place after the March 2011 nuclear disaster.

Genkai Town, the host municipality of the power plant, had given its approval earlier, as well as the Saga prefectural assembly.

Yamaguchi said the restart decision required much consideration. He said he felt he had no choice but to approve the plan.

The reactors will not be restarted until this fall, at the earliest.

The Nuclear Regulation Authority must give its approval for the restart and carry out required inspections.

Saga governor green-lights restart of Genkai nuclear plant

<https://mainichi.jp/english/articles/20170424/p2g/00m/0dm/067000c>

Saga Gov. Yoshinori Yamaguchi on Monday consented to restart two nuclear reactors at the Genkai power plant in the southwestern Japan prefecture, a process expected to result in them coming back online as early as this summer.

The governor's decision for the Nos. 3 and 4 reactors at the Kyushu Electric Power Co. plant in the town of Genkai is likely to elicit strong reactions from municipalities and residents opposed to their reactivation amid widespread concerns about a major nuclear accident following the 2011 Fukushima nuclear crisis. "After deeply thinking it over, as it was a grave decision to make, I have reached the conclusion that (the restart) is inevitable under the present circumstances," the governor said at a press conference. He also

said dependence on nuclear power "cannot be helped to some extent" from the standpoint of securing energy supply.

The reactors in January passed tougher safety requirements that were introduced in the wake of the nuclear disaster. Monday's decision comes after the prefectural government consulted with the heads of municipalities within the prefecture and local residents over whether to approve the restart.

The town of Genkai, which hosts the power station, gave its consent last month. And on April 13, the prefectural assembly adopted a resolution approving the reactors' restart.

Of the eight municipalities within a 30-kilometer radius of the seaside plant, the city of Imari in Saga, and the cities of Iki, Matsuura and Hirado in neighboring Nagasaki Prefecture have opposed the restart.

In Tokyo, the central government's top spokesman said Monday that the government will continue to seek acceptance from local authorities in and around the site.

"We feel it is important that the governor's understanding has been gained regarding the restart of these reactors," Chief Cabinet Secretary Yoshihide Suga told a press conference.

Even though Japan was hit by the nuclear disaster following a massive earthquake and tsunami that devastated the country's northeast in March 2011, the government is pushing for reactors to be restarted as nuclear power is regarded as a key energy source.

All four reactors at the Genkai plant had stopped operating by December 2011 in the wake of the Fukushima accident. Kyushu Electric has decided to decommission the aging No. 1 reactor.

Other than gaining local approval, restarting a nuclear reactor requires getting a green light on safety provisions, and conducting an inspection before the restart.

Currently, out of 45 commercial reactors in the country, only three reactors -- the Nos. 1 and 2 reactors at Kyushu Electric's Sendai plant in Kagoshima Prefecture, and the No. 3 reactor at Shikoku Electric Power Co.'s Ikata plant in Ehime Prefecture, western Japan -- are in operation.

In 2009, the Genkai plant's No. 3 reactor began generating power using MOX fuel, which is created from plutonium and uranium extracted from spent fuel. In June 2016, the Fukuoka High Court upheld a ruling that the utility can continue with its plan to use MOX fuel at the reactor.

The use of the fuel had been controversial even before the 2011 nuclear crisis as it is more radioactive than uranium fuel, which is widely used at the nation's nuclear power plants.

See also : <http://www.japantimes.co.jp/news/2017/04/24/national/saga-governor-green-lights-restart-genkai-nuclear-reactors/>

New reconstruction minister Yoshino

April 27, 2017

New reconstruction minister visits tsunami-hit areas in bid to mend ties

<http://www.japantimes.co.jp/news/2017/04/27/national/new-reconstruction-minister-visits-tsunami-hit-areas-bid-mend-ties/#.WQHFEykKos>

Kyodo

FUKUSHIMA – The new disaster reconstruction minister on Thursday visited areas damaged by the March 2011 earthquake and tsunami, vowing to restore confidence in the government among those dismayed by his predecessor's gaffes.

"I came here today in the hope of regaining trust," Masayoshi Yoshino, who replaced Masahiro Imamura on Wednesday, told Fukushima Gov. Masao Uchibori. The prefecture is struggling to rebuild not only from the quake and tsunami but also from the nuclear disaster they triggered.

In remarks made the same morning to the 2011 disaster reconstruction committees of both houses of the Diet, Yoshino vowed to "put myself alongside those affected by the disasters, perform my functions (as minister) and further accelerate recovery."

Yoshino, a six-term Liberal Democratic Party lawmaker in the House of Representatives, hails from Iwaki, which is part of his constituency on the Fukushima coast.

"Since immediately after the disaster, I have sincerely listened to the voices of those affected and shared their pain and suffering, as someone who was also affected," Yoshino said.

"I will work not just to bring (the areas) back to the state they were in before, but to create a new northeast," he said, noting that many people in the recovering areas still face difficult living conditions, although the number of displaced people has fallen to nearly a quarter of the 470,000 peak.

Yoshino's predecessor said at a party Tuesday evening that it was "a good thing" the 2011 disaster struck northeastern Japan rather than the Tokyo area, due to the greater costs that would have been involved. Imamura, a native of Saga Prefecture, took back the remark and apologized but ended up resigning the following morning. The seven-term LDP Lower House lawmaker had assumed his first Cabinet post in August last year.

Before being appointed minister on Wednesday, Yoshino was chairman of the Lower House special committee on disaster reconstruction.

Taking his place as chairman is fellow LDP lawmaker Shunichi Suzuki, elected from a constituency in Iwate.

New reconstruction minister blasts predecessor over 'intolerable' gaffe

<https://mainichi.jp/english/articles/20170427/p2a/00m/0na/002000c>

Newly appointed Reconstruction Minister Masayoshi Yoshino answers a question from a reporter at a news conference in Chiyoda Ward, Tokyo, on April 26, 2017. (Mainichi)

Newly appointed Reconstruction Minister Masayoshi Yoshino criticized his predecessor Masahiro Imamura, who resigned on April 26 to take responsibility for his gaffe over the Great East Japan Earthquake, saying Imamura's remark was "intolerable."

- **【Related】** Reconstruction minister's resignation reveals gov't's sloppiness under Abe's dominance
- **【Related】** Disaster minister Imamura resigns after quake gaffe
- **【Related】** Opposition parties question PM's responsibility as Cabinet minister gaffes pile up

"I'm a disaster victim. I understand victims' feelings more than anyone else," Yoshino said at the outset of about a 20-minute news conference on April 26 shortly after his appointment. He added that his home and office in Fukushima Prefecture were hit by tsunami triggered by the March 2011 earthquake.

"I can truly stand by disaster victims," Yoshino said passionately.

Imamura stated on April 25 it was "a good thing" that the disaster hit the Tohoku region instead of the densely populated Tokyo metropolitan area, forcing him to decide later in the day to step down. Imamura was officially replaced by Yoshino on April 26.

When asked to comment on insensitive words and deeds by Cabinet members and other officials involved in disaster recovery, Yoshino said, "I think successive (reconstruction) ministers have empathized with people in disaster-hit areas in responding to recovery from the disaster."

In reply to a question about government responses to those who have voluntarily evacuated areas hit by the Fukushima nuclear disaster out of concerns about radiation, the new reconstruction minister said, "We'd like to extend further assistance if aid provided so far is insufficient."

Imamura had also come under fire over an earlier gaffe, in which he said such voluntary evacuees were "self-accountable."

See also : <http://www.japantimes.co.jp/opinion/2017/04/27/editorials/reconstruction-minister-axed/>

TEPCO stays in the black (without restarting Kashiwazaki-Kariwa)

April 29, 2017

Cost-cutting keeps Tepco in black but nuclear redress taking toll

<http://www.japantimes.co.jp/news/2017/04/29/business/corporate-business/cost-cutting-keeps-tepco-black-nuclear-redress-taking-toll/>

Kyodo

Tokyo Electric said Friday that it stayed in the black in fiscal 2016 for the fourth consecutive year thanks to cost-cutting efforts after the 2011 triple core meltdown at the Fukushima No. 1 power plant.

But the beleaguered utility, which is effectively under state control, said group pretax profit sank 30.2 percent to ¥227.62 billion in the year ended March 31, partly because **electricity prices dropped in line with the decline in crude oil prices.**

Consolidated net profit was ¥132.81 billion, down 5.7 percent, after an extraordinary loss of ¥392 billion was booked to account for compensation payments triggered by the Fukushima disaster. Sales fell 11.7 percent to ¥5.36 trillion.

Tokyo Electric Power Company Holdings Inc., better known as Tepco, did not release an earnings outlook for the current year, saying **it could not make any predictions because it is in the process of crafting a new turnaround plan.**

Tepco President Naomi Hirose said **the utility has managed to stay profitable without reactivating its giant Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture,** but noted that using nuclear power is still important to get back on track.

"We must earn at least ¥500 billion" annually to pay compensation and for costs to scrap the disaster-hit Fukushima reactors, he said at a news conference.

"Otherwise we won't be able to fulfill our responsibility over Fukushima. But we still have to generate profits . . . and we're placing expectations on Kashiwazaki-Kariwa for that," he added.

Tepco is trying to revive itself after it was nationalized in exchange for a ¥1 trillion capital injection in 2012. **But compensation and cleanup costs are ballooning, with the government's latest estimate at ¥22 trillion — twice what was initially expected.**

The new so-called special business plan will be the third major revision since the first plan was formulated in 2011.

Kansai Electric Power Co., meanwhile, reported a group net profit of ¥140.79 billion in fiscal 2016, almost unchanged from the previous year, marking a surplus for the second consecutive year.

Kepeco's group sales fell 7.2 percent to ¥3.01 trillion partly due to a decline caused by competition from new entrants in the retail electricity market, which was finally liberalized in April 2016.

The reform brought an end to the decades-long regional monopolies run by 10 major utilities, allowing households to choose their own power companies.

The Osaka-based utility's electricity sales volume in fiscal 2016 dropped 4.7 percent to 121.5 billion kilowatt-hours, causing it to fall behind Nagoya-based Chubu Electric Power Co. for the first time and end up in third place.

Tokyo Energy Partner Inc., Tepco's retail arm, is in first place.

TEPCO must set funds aside for decommissioning purposes

May 10, 2017

Tepco mandated to create fund for scrapping Fukushima plant

<http://www.japantimes.co.jp/news/2017/05/10/national/tepco-mandated-create-fund-scrapping-fukushima-plant/#.WRNqD9ykKic>

Kyodo

The Diet passed a bill Wednesday requiring Tokyo Electric Power Company Holdings Inc. to put aside extra funds to decommission its crisis-hit Fukushima nuclear power plant, **as the state seeks to gain more financial control over the utility.**

Under the revised law, the state-backed Nuclear Damage Compensation and Decommissioning Facilitation Corp. will also be involved in the decommissioning process.

Currently, Tepco has been using profits to pay for scrapping the Fukushima No. 1 plant, which was destroyed after a 2011 earthquake and tsunami triggered a triple meltdown.

The revised law is expected to take effect later this year. **With the estimated cost of the decommissioning work already surging to ¥8 trillion from the previously forecast ¥2 trillion, a government panel has called for setting up a funding system that is not dependent on the company's financial health.**

The government projects the total cost to deal with the Fukushima nuclear disaster will reach ¥21.5 trillion, including decommissioning costs, compensation and decontamination work.

Under the new program, the state-backed organization will decide on the amount Tepco should store away each business year and the industry minister must approve it.

The utility must also formulate a financial plan and obtain the minister's approval when it uses the reserve fund for its decommissioning work.

The new law will strengthen the monitoring power of authorities as well, enabling the industry ministry and the organization to conduct on-site inspections to check whether Tepco is putting aside the money. **The government has a major say in the utility's operations after acquiring 50.1 percent of the company's voting rights.** Tepco faces huge compensation payments and decommissioning costs among other problems due to the 2011 disaster.

The industry ministry has projected roughly ¥300 billion will be needed annually for the next 30 years to complete the scrapping of the power plant, which involves the difficult procedure of extracting nuclear debris.

The costs could grow further. A study by a Tokyo-based private think tank has shown the bill for the decommissioning could balloon to between ¥11 trillion and ¥32 trillion assuming materials from the No. 1 to 3 reactors, which suffered core meltdowns, need to be specially treated for radioactive waste.

The Japan Center for Economic Research estimated the total cost of managing the disaster could reach ¥70 trillion, more than three times the government calculation.

India must confirm "no first-use" policy

May 12, 2017

Japan to end nuclear pact if India alters policy

https://www3.nhk.or.jp/nhkworld/en/news/20170512_21/

Foreign Minister Fumio Kishida says Japan will terminate a civil nuclear cooperation pact with India if the country changes its "no first-use" policy on nuclear weapons.

Kishida made the remark on Friday in a Lower House committee session that discussed whether to approve the agreement that the prime ministers of the 2 countries signed last November.

Kishida was asked what Japan would do if India lifts its moratorium on nuclear tests and reverses its policy of not using nuclear weapons first.

The foreign minister said Japan's cooperation with India is premised on a 2008 statement by the Indian government that confirms the "no first-use" policy.

He said Japan will exercise its right to terminate the pact if the contents of the statement are changed.

The deal would allow Japan to export nuclear-related technology for peaceful purposes. It would also enable the 2 countries to exchange know-how on nuclear materials and equipment for nuclear plants.

India, which possesses nuclear weapons, has not signed the Nuclear Non-Proliferation Treaty.

Fake decontamination in Fukushima forests?



May 11, 2017

Fukushima mulls criminal complaint over fake forest decontamination work

<https://mainichi.jp/english/articles/20170511/p2a/00m/0na/018000c>

FUKUSHIMA -- The municipal government here is considering filing a criminal complaint against parties concerned for allegedly fabricating bamboo forest decontamination work to receive 10 times the normal compensation, it has been learned.

- 【Related】 Decontamination work in Fukushima Pref. far from finished business

City-commissioned decontamination work was conducted in this city's Matsukawamachi district after the area was contaminated with radioactive materials emanating from the Fukushima No. 1 Nuclear Power Plant disaster. While about 500 yen per square meter is paid to decontaminate forests in affected areas, the reward shoots up to around 5,100 yen per square meter if bamboo forests are involved as it is necessary to cut thick bamboo groves before starting decontamination work.

Short pieces of bamboo are seen sticking out from the ground in one of the photos that a subcontractor submitted to the city to make it look like bamboo trees had been felled. (Photo courtesy of the Fukushima Municipal Government)

According to the Fukushima Municipal Government, now-defunct Zerutech Tohoku, a third-tier subcontractor of a joint venture that undertook the decontamination work, fabricated photos to be attached to decontamination work reports as if bamboo trees were felled for the work. The reports were

submitted to the city by way of the joint venture, based on which unduly higher amounts of compensation were paid to the organization.

The joint venture comprised three construction firms based in the city of Fukushima -- Hikari Construction Co., Komata Construction Co. and Noko Kensetsu Co. The consortium undertook work to decontaminate areas totaling 185,000 square meters located within 20 meters from residential districts and farmland between September 2014 and March 2016, and received a total of some 620 million yen from the city, according to officials of the city's decontamination work planning division.

The third-tier subcontractor in question, which was based in the prefectural city of Nihonmatsu, is accused of placing short pieces of bamboo in the ground and photographing them to make it appear as if bamboo trees were felled for decontamination work. The company also fabricated a photograph in which a worker is seen carrying a cut bamboo tree, and used the photo multiple times in work reports by making it appear as though the scene was from several different work sites.

The municipal government uncovered the misconduct in November last year following whistleblowing from a source close to the case, and has since been questioning joint venture officials.

"It was difficult to detect the deliberate falsifications because we checked the work based on papers," said Takashi Tsuchida, head of the city's decontamination work planning division.

TEPCO's nuclear plans

May 12, 2017

TEPCO aims for nuclear power business realignment in 2020s

<https://mainichi.jp/english/articles/20170512/p2a/00m/0na/012000c>

Tokyo Electric Power Company (TEPCO) Holdings Inc. unveiled a plan to seek realignment of its nuclear power business and power transmission and distribution units with other power companies in the 2020s, amid a lukewarm stance in the industry toward teaming up with the embattled utility.

- **【Related】** As I See It: Six years later, no time for TEPCO personnel squabbles
- **【Related】** TEPCO to reshuffle top management, promote Kobayakawa to president

TEPCO Holdings submitted the plan to the government on May 11 together with the Nuclear Damage Compensation and Decommissioning Facilitation Corp. (NDF), as the utility's new rehabilitation scheme following the outbreak of the Fukushima No. 1 Nuclear Power Plant disaster.

Specific steps for advancing the realignment will be finalized as early as this coming fall after TEPCO discusses the matter with the government and NDF. However, the reconstruction plan looks unfeasible as other power companies remain reluctant to join hands with TEPCO, which is riddled with colossal amounts of damage compensation and nuclear decontamination and reactor decommissioning costs stemming from the nuclear disaster.

Under the plan, TEPCO aims to promote realignment and integration of its nuclear power, power transmission and distribution businesses over the next decade, "ultimately seeking to achieve roughly 450 billion yen in ordinary profits annually." To facilitate the realignment, TEPCO is planning to set up a new consortium together with other utilities.

"We filed the plan with the government after having repeated discussions on how to enhance TEPCO's corporate value," TEPCO Holdings President Naomi Hirose told a press conference. "We believe the government will approve our plan."

Under the new strategy, 500 billion yen annually will be set aside for dealing with the Fukushima nuclear crisis. To that end, TEPCO presented six different scenarios for resuming operations at the Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture to improve earnings, with reactor reactivation envisaged either in fiscal 2019, fiscal 2020, or fiscal 2021.

With regard to the estimated 4-trillion-yen cost for decontaminating areas tainted with radioactive materials emanating from the nuclear catastrophe, which the government is temporarily covering on behalf of TEPCO via the NDF, TEPCO has changed its initial plan to reimburse the government by selling corporate shares and now plans to consider the matter from a broader perspective, including the option of selling shares of the new consortium.

TEPCO will also look into having its effective nationalization finalized by the end of fiscal 2019, according to the plan.

TEPCO's nuclear plans (2)

12.05.2017_No94 / News in Brief

Tepco Recovery Plan Includes Search For Partners, Restart Of Kashiwazaki Kariwa

<http://www.nucnet.org/all-the-news/2017/05/12/tepco-recovery-plan-includes-search-for-partners-restart-of-kashiwazaki-kariwa>

12 May (NucNet): Tokyo Electric Power Company (Tepco) said on 11 May 2017 that it will look for partners for its nuclear business as part of a recovery plan that could see it restart Units 6 and 7 at the Kashiwazaki Kariwa nuclear station in Niigata Prefecture, western Japan, by March 2020 at the earliest. The move would be the first step towards getting all seven boiling water reactor (BWR) units at the station back online by March 2026, the company said. Units 1, 6 and 7 at Kashiwazaki Kariwa have been shut since shortly after the March 2011 Fukushima-Daiichi accident, while units 2, 3 and 4 have been shut since an earthquake in Niigata Prefecture in July. The plan, which needs government approval, is part of an updated Tepco turnaround strategy aimed at generating operating profit of nearly 500 billion yen (€4bn, \$4.4bn) in the fiscal year ending March 2026, a substantial increase from the 226 billion yen operating profit expected for the fiscal year that ends in March 2018. Tepco also needs to fund decommissioning and remediation costs at Fukushima-Daiichi. Those costs have been put by Tepco at around \$770m a year, although **various estimates have differed widely**. Tepco said it aims to set up joint ventures for nuclear power and power grid operations to streamline its business and bolster earnings. Its search for an industrial partner includes plans to introduce "safe and low-cost" light-water reactors at the Higashi Dori nuclear station in Aomori Prefecture, northern Japan. Tepco plans to build two reactors at

the site, where Tohoku Electric Power Company already owns a single 1,067-MW BWR. All reactors in Japan were ordered shut following the Fukushima-Daiichi accident. To restart, they must meet a series of regulatory requirements and receive local government consent. Of 42 operable reactors in the country, three are operating and another four are close to restarting.

TEPCO: No time for personnel feuds

May 12, 2017

As I See It: Six years later, no time for TEPCO personnel squabbles

https://mainichi.jp/english/articles/20170512/p2a/00m/0na/014000c#cxrecs_s*

Six years since the outbreak of the nuclear disaster at Tokyo Electric Power Company (TEPCO) Holdings Inc.'s Fukushima nuclear plant, the utility still faces massive challenges. And yet, what I've come to see through my reporting is that efforts meant to help revitalize the company's finances in order to secure the funds needed to bring the nuclear crisis under control and compensate victims, have been overshadowed by petty feuds over personnel appointments between executives dispatched by the central government -- which effectively owns the company -- and dyed-in-the-wool TEPCO employees. Rebuilding TEPCO will be impossible if such squabbles are not put to rest.

- **【Related】** TEPCO to reshuffle top management, promote Kobayakawa to president
- **【Related】** TEPCO aims for nuclear power business realignment in 2020s

In March of this year, TEPCO announced an outline of its revitalization plans, with a restructuring of its nuclear power business as a central pillar, as well as a reshuffling of executive personnel. According to the announcement, chairman Fumio Sudo, 76, will be replaced by Takashi Kawamura, 77, the previous chairman at Hitachi Ltd., and president Naomi Hirose, 64, will be replaced by 53-year-old board director Tomoaki Kobayakawa.

After the nuclear crisis began in March 2011, TEPCO was effectively nationalized. The plan has been for TEPCO to increase its earning power by rebuilding its finances under the central government's management, so that it could secure the funds necessary to decommission the reactors at Fukushima No. 1 Nuclear Power Plant and compensate victims of the disaster.

With the nationalization of TEPCO, the government swept the utility clean of all its old executives and in addition to placing bureaucrats from the Ministry of Economy, Trade and Industry (METI) on the company's board, in 2014 it put Sudo, formerly of major steel corporation JFE Holdings, in the position of TEPCO chairman. However, when Sudo, with the backing of the government, implemented cost-cutting measures, grumblings were heard within the company that Sudo was seeking too many results too fast and that staff evaluations were changing too dramatically. Sudo's clashes with TEPCO president Hirose, who had worked up the ranks and was initially considered pro-reform, grew increasingly serious.

There was an incident in the spring of 2016 that could be considered a prelude to current conflicts. Sudo and METI, unhappy with the fact that Hirose would not cut his ties with former management, tried to reappoint him to the post of deputy chairman. Hirose resisted and, according to multiple sources involved with TEPCO, was able to get the support of a former TEPCO executive who had close ties with the prime

minister's office. As a result, Hirose stayed in his post as company president, but his relationship with Sudo deteriorated beyond the point of repair. "It wasn't uncommon for the two to criticize each other openly at management meetings," a senior TEPCO official said.

At the end of 2016, METI announced that the amount of money necessary to deal with the nuclear crisis would be about 21.5 trillion yen, almost twice the amount of an earlier estimate. Because of the need to secure more funds, the government set up an expert panel, which then offered "recommendations" to TEPCO on how to rebuild its finances. When it was revealed that "the passing of authority down to the next generation" was one of the pieces of advice offered by the panel, industry insiders saw it as another government attempt at bringing Hirose down from his post, a source close to the case said.

Hirose is said to have resisted strongly to such renewed efforts. However, Sudo vowed that he would step down if Hirose did, forcing Hirose to bow to the pressure to resign. Some in the electric power industry have described the latest personnel reshuffle a "tie" in that both "camps" made concessions, but discontent is already spreading among career TEPCO employees. According to a senior TEPCO official, new executives, including Kobayakawa and the new president of a subsidiary company, are "all drinking buddies of outside board members who are former METI bureaucrats."

TEPCO can't afford to waste time on personnel feuds. In order to come up with the money needed to bring the troubled reactors under control, TEPCO must earn 500 billion yen per year for the next 30 years. The amount goes up further when taking into account the funds needed for capital investment. Meanwhile, TEPCO's consolidated financial results for fiscal 2016 stood at just 258.6 billion yen in operating income. TEPCO's outline of its latest reorganization plan shows that it is aiming to raise earning power by realigning its various businesses, such as nuclear power, as well as the transmission and distribution of power, with other utilities. However, this plan is a carbon copy of the recommendations given by the government-established expert panel. Some long-time TEPCO employees have said the company only included the recommendation into its reorganization plan because the government has been on its back to do so, and that because other utilities will find no benefit to them in restructuring with TEPCO, the plan will never come to fruition. If people in the company remain this divided, TEPCO will never be able to follow through with rigorous reforms.

If TEPCO drops the ball on management reform and is unable to come up with the money it needs, it could lead to further burdens on the public in the form of higher electricity prices. **TEPCO, under normal circumstances, would have gone under following the onset nuclear disaster.** So if things go further south, not just the utility, but the central government, which allowed the utility to survive by pumping 1 trillion yen from national coffers into the company, will be held accountable.

Kawamura, who will be appointed TEPCO's new chairman at the company's general meeting of shareholders in late June, has the experience of having accomplished Hitachi's v-shaped turnaround through fundamental management reforms. While his appointment was initiated by the government, many TEPCO employees welcome Kawamura's pending appointment. The latest personnel change may be the last chance for TEPCO and the government to put its differences aside toward the goal of rebuilding the troubled power company.

Looking back at the latest personnel power struggle, a senior TEPCO official said, "I'm embarrassed when asked if any of the people involved (in the debacle) had 'our responsibility toward Fukushima' in mind." **The government and TEPCO must not forget its responsibility toward the victims of the nuclear disaster.** If they focused on the fact that there are people out there whose peaceful lives in their beloved hometowns were taken away from them, they could refrain from feuds over personnel appointments. (By Daisuke Oka, Business News Department)

TEPCO's nuclear plans (3)

May 15, 2017

EDITORIAL: Fulfilling duties to Fukushima must top list in TEPCO reform

<http://www.asahi.com/ajw/articles/AJ201705150018.html>

A new plan has recently been worked out for rehabilitating Tokyo Electric Power Co. Holdings Inc. (TEPCO), the embattled operator of the crippled Fukushima No. 1 nuclear power plant.

The plan is centered on a bold management reform for enhancing the utility's earning capacity so it can cover the ballooning expenses related to the Fukushima nuclear disaster of 2011, including the payment of damages and the cost of scrapping the hobbled nuclear reactors.

TEPCO obviously has the duty to fulfill its responsibility to the people and communities affected by the disaster. But the plan has set profit targets that are anything but easy to achieve, and some of the components of the plan appear unlikely to be realizable any time soon.

There is a need to continue reviewing the plan so it will not end up as simply pie in the sky.

TEPCO came under de facto government ownership after it could no longer keep operating on its own as a result of the Fukushima nuclear meltdowns. The utility has since been paying damages and otherwise dealing with the aftermath of the disaster while receiving aid in various forms under government supervision.

It was learned late last year that post-disaster processing would cost twice as much as the previous estimate. The government worked out a framework, wherein about 16 trillion yen (\$141 billion), out of the total expense of some 22 trillion yen, would be covered either by TEPCO or with profits from the sale of the government's share in TEPCO.

The rehabilitation plan, which was revised in response thereto, envisages that TEPCO can come up with 500 billion yen in necessary expenses annually over the coming three decades. It also sets the goal of substantially increasing TEPCO's profits.

Many questions linger, however.

A restart of the idled Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture, which is expected to be the key instrument for TEPCO's turnaround, is unlikely to be feasible any time soon. The governor of Niigata Prefecture and others are growing increasingly distrustful of TEPCO, as it recently came to light that the company had failed to inform the government's Nuclear Regulation Authority that one key building on the nuclear plant site is not sufficiently anti-seismic.

The first order of business is to take thorough safety measures. TEPCO should come up with ways for generating the necessary financial resources without relying on a restart of the nuclear plant.

The centerpiece of new measures for enhancing TEPCO's earning capacity is a prospective reorganization of its operations along segment lines, such as in the field of power transmission and distribution and in nuclear power operations, which would also involve other utilities. That apparently came against the backdrop of the industry ministry's hopes that TEPCO's realignment will trigger a reform of the entire energy industry.

Other major electric utilities, however, are wary of the risk of having to play a part in TEPCO's response to the nuclear disaster. It therefore remains uncertain whether the reorganization will actually take place as envisaged.

The framework for sharing the burdens of post-disaster processing, which the government has worked out as a precondition for the new plan, is in the first place ridden with problems.

The framework envisages that new entrants to the power supply market, who operate no nuclear reactors, will also have to pay part of the disaster response costs. Critics continue to argue such a plan is about passing the bill on to irrelevant parties.

The 4 trillion yen in radioactive cleanup fees are designated for being covered by profits on the sale of TEPCO shares. But that plan could fail unless TEPCO's earnings were to expand and its share price were to grow significantly.

Using taxpayers' money to fill the hole would then emerge as a realistic option.

TEPCO was allowed to stay afloat at the expense of taxpayers on the sole grounds that it bears heavy responsibility to the people and communities affected by the Fukushima disaster.

The government would have to take another step forward if TEPCO were unable to fulfill that responsibility. That would also fuel the argument for dismantling the embattled utility.

TEPCO is expected to soon make a fresh start under a reshuffled management. The utility and the government should not forget about the exacting eyes of the public.

--The Asahi Shimbun, May 14

Trying to dispel negative rumors

May 21, 2017

Fast-selling yogurt helps fund education in Fukushima

<http://www.asahi.com/ajw/articles/AJ201705210006.html>

By HIROKI KOIZUMI/ Staff Writer

MOTOMIYA, Fukushima Prefecture--New yogurt products made here are shooting up in popularity, and developers hope they will help dispel negative publicity surrounding foodstuffs following the 2011 nuclear disaster.

The lactic acid bacteria used in the products was discovered by University of Tokyo researcher Kazuhisa Sekimizu, who developed the products jointly with a dairy company in Motomiya.

One yen (1 cent) each from the proceeds of a unit sold is being donated to fund the education of local children, who will be the central players in post-disaster rebuilding work.

Tohoku Kyodo Milk Industry Co. donated about 3,000 units of one of its yogurt products in late April to 10 elementary and junior high schools in Motomiya.

"This yogurt product embodies strong passion for helping the education of people like you, who will be working to rebuild Fukushima Prefecture," Tohoku Kyodo Milk Industry President Hiroshi Imahase told schoolchildren during his visit to Motomiya Elementary School.

The company developed two yogurt products made with a lactic bacterium strain discovered by Sekimizu, formerly a professor of microbiology with the University of Tokyo's Graduate School of Pharmaceutical Sciences and now a professor emeritus.

The products were put on sale in July 2014 and April 2015, respectively.

Their sales grew from year to year and reached about 600,000 units in fiscal 2016. The company donated about 600,000 yen to parties including the Fukushima prefectural government and the Motomiya city government for the purchasing of books.

After the Great East Japan Earthquake and tsunami triggered meltdowns at the Fukushima No. 1 nuclear power plant in 2011, Sekimizu thought about how he could help disaster-affected communities, which were suffering from a negative public image due to radiation fears.

Sekimizu gathered some 10,000 bacterium strains from soil on a University of Tokyo campus, a slug, kimchi and other media. **The lactic bacterium strain collected from kiwi fruit rind was found to be the most effective in stimulating immunity.**

The scientist used that strain to make yogurt on his own, which he took with himself when he visited the offices of Tohoku Kyodo Milk Industry in 2013. He asked Imahase to taste it and approached him with a proposal for joint product development.

Negative publicity from the nuclear disaster had taken a big toll on Tohoku Kyodo Milk Industry. The sales of milk, the company's mainstay product, had plummeted to less than half the pre-disaster levels, and the company had difficulties in coming up with development funds.

Sekimizu's enthusiasm, however, won over company officials, who decided to proceed with product development.

"New strains of lactic acid bacteria are being found one after another," Sekimizu said. "I hope to continue helping to spread word about Fukushima Prefecture's dairy farming on a global level."

Kansai Electric restart "grossly irresponsible"

May 19, 2017

EDITORIAL: Kansai Electric restarts reactor as lights dim on nuclear power

<http://www.asahi.com/ajw/articles/AJ201705190014.html>

Kansai Electric Power Co. restarted the No. 4 reactor at its Takahama nuclear power plant in Fukui Prefecture on May 17, producing electricity through atomic energy for the first time since March 2016.

The Osaka-based utility also plans to bring the No. 3 reactor at the plant back online in early June.

The Osaka High Court has paved the way for the move by overturning an injunction banning the operations of the two reactors issued by the Otsu District Court in Shiga Prefecture.

Furthermore, Kansai Electric intends to start operating the No. 3 and No. 4 reactors at its Oi nuclear plant, also in Fukui Prefecture, in autumn. These two reactors have effectively passed the regulatory inspections by the Nuclear Regulation Authority.

But **none of the fundamental problems concerning these reactors has been resolved, including how to secure the safety of local residents during serious accidents or how to dispose of spent nuclear fuel.**

We feel compelled to express our opposition anew to any reactor restart before clearing up these problems.

Some 180,000 people live within 30 kilometers of the Takahama plant. The local governments concerned as well as the central government have worked out plans for widespread evacuations in the event of a serious accident at the plant.

But an evacuation drill conducted last summer exposed some serious shortcomings in these plans. It revealed, for instance, the possibility that certain areas could become isolated if an emergency occurs under poor weather conditions that make it impossible to use helicopters and ships.

There are also concerns that many people may try to flee in cars when a serious accident occurs, and getting caught in traffic jams and failing to escape the disaster.

Of the facilities to provide shelter for evacuees from areas around the Takahama plant during nuclear accidents, a total of 126 are located in areas deemed vulnerable to such natural disasters as landslides, according to a survey by The Asahi Shimbun.

As many as 15 nuclear reactors are located in Fukui Prefecture, including those that are set to be decommissioned.

No effective action has been taken to prepare for simultaneous accidents at more than one of these reactors.

There is no reliable plan, either, for tackling complicated challenges related to spent nuclear fuel.

The pools to store spent nuclear fuel within the nuclear plants are fast approaching their capacity.

Kansai Electric has pledged to the Fukui prefectural government to decide on the location of an interim storage facility for spent nuclear fuel by around 2020. When it made the promise to choose the location of the storage facility, the utility had in mind the Kansai region around Osaka, which consumes most of the power generated at the nuclear plants in the prefecture.

But strong local concerns about the safety of the envisioned facility in the Kansai region have totally blocked the progress of the selection process.

The reactors at the Takahama plant will burn mixed-oxide (MOX) fuel, a mixture of uranium and plutonium oxide, in so-called pluthermal (plutonium thermal) operations.

Since spent MOX fuel cannot be handled even at the fuel reprocessing plant being built in Rokkasho, Aomori Prefecture, it has to be stored in the spent fuel pools for the time being.

Kansai Electric has stuck to its plan to continue operating its nine reactors, including three units that have been in service for more than four decades.

But it is behaving in a grossly irresponsible manner by restarting reactors without solving the raft of serious problems.

Six years have passed since the devastating accident occurred at the Fukushima No. 1 nuclear power plant.

The power supply in this nation has become stable despite nationwide reactor shutdowns thanks to broad power-saving efforts across the country and the effects of the liberalization of the power market.

Kansai Electric claims that restarting reactors will improve its earnings performance, enabling it to lower electricity rates.

Besides such economic benefits, however, there are few strong reasons for rushing to bring offline reactors back online again.

The municipal governments of Osaka and Kyoto, which are among the leading shareholders of the utility, plan to again submit proposals calling on the company to end its dependence on nuclear power to the scheduled shareholders' meeting in June.

Customers of the utility still have critical views about its plan to resume operations at its nuclear plants. The outlook of its nuclear power-dependent business structure is dismal. The company should make serious efforts to find a way to wean itself from atomic energy.

Former TEPCO executives to face trial

May 24, 2017

Former TEPCO execs to be tried on June 30th

https://www3.nhk.or.jp/nhkworld/en/news/20170524_28/

Three former executives of Tokyo Electric Power Company, or TEPCO, are to face trial next month for the March 2011 nuclear accident at the Fukushima Daiichi plant.

Former TEPCO chairman Tsunehisa Katsumata and former vice presidents Ichiro Takekuro and Sakae Muto are accused of failing to take appropriate safety measures despite having been able to foresee that the plant would be inundated by tsunami waves.

They have been charged with professional negligence resulting in death or injury.

In 2013, public prosecutors decided not to press charges against the 3.

But they were indicted in February last year by court-appointed lawyers, after a prosecution inquest panel of randomly selected citizens voted to do so.

Preparations for the trial are underway at the Tokyo District Court.

The 3 former executives are expected to plead not guilty at their first hearing on June 30th.

Scale down Kashiwazaki-Kariwa plant, says Niigata Mayor

June 2, 2017

Mayor to link reactor decommissioning to restarting 2 others at same TEPCO plant

<https://mainichi.jp/english/articles/20170602/p2a/00m/0na/002000c>

KASHIWAZAKI, Niigata -- The mayor of this city, home to the idled Kashiwazaki-Kariwa Nuclear Power Plant, said he intends to demand at least one of five reactors at the plant be decommissioned as a precondition for restarting two others.

- **【Related】** TEPCO gave inaccurate explanations about seismic capacity of nuke plant
- **【Related】** New gov't bill would make TEPCO reserve funds for Fukushima plant decommissioning
- **【Fukushima & Nuclear Power】**

"I'm not assuming that all seven reactors will be in operation," Mayor Masahiro Sakurai told a regular news conference on June 1.

This is the first time that the mayor has mentioned specifically the possible decommissioning of reactors at the power station.

Mayor Sakurai said, "There are growing worries for local residents," citing the insufficient strength of the power station's special quake-proof building that will serve as a headquarters in the event of an emergency and North Korea's firing of missiles.

Sakurai suggested it is inevitable to scale down the Kashiwazaki-Kariwa plant. "Considering the Fukushima nuclear accident, seven reactors are too many," he said.

At the same time, the mayor emphasized that he does not intend to demand that all of the No. 1 to 5 reactors at the plant be shut down as a precondition for reactivating the No. 6 and 7 units, for which the Nuclear Regulation Authority is conducting safety inspections.

He said **he will offer to leave a decision on which reactors will be decommissioned to plant operator Tokyo Electric Power Co. (TEPCO) and the national government**, and urged these entities to present a decommissioning plan within two years.

Mayor Sakurai also said he believes that **businesses related to the reactor decommissioning will help revitalize the local economy.**

In response to the mayor's comments, a TEPCO official said, "We haven't heard anything directly from the Kashiwazaki Municipal Government. We'd like to continue to listen to their opinions on us."

Nuclear War without a War

May 24, 2017

Nuclear War Without a War

<http://newsweekme.com/nuclear-war-without-war/>

By Muhammad Riaz Pasha

There are compelling reasons to end production and use of the nuclear material. There is enough highly enriched uranium on hand to fuel non-weapon uses of the fissile material for a century. To be sure, when nuclear goes wrong, it really, really goes wrong. There is huge increase in the number of cancer patients along with death rate of cancer patients in the world.

Unethical and dangerous experimentation undoubtedly continues in secret up to the present time, ostensibly under the guise of "national security."

What is the greatest challenge humanity faces in this nuclear age?

How do we define security now, in the age of climate change, nuclear energy, and terrorism?

How, as scientists, do we think about time and responsibility in a world with rapidly evolving nuclear technology?

The truth is that most politicians, businessmen, engineers and nuclear physicists have no innate understanding of radiobiology and the way radiations induce cancer, congenital malformations and genetic diseases which are passed generation to generation.

Low dose of ionizing radiation can increase the risk of longer term effects such as cancer. The effects of radiation dose are either prompt or delayed, prompt effects occur within the first several months and delayed effects occur over many years. The delayed effects include cancer and other diseases. Risk estimate assume that even small amount of ionizing radiation pose some risk. No one knows for sure, what levels of radiation is safe? This question is of ongoing interest to scientists and researchers.

In the nuclear arms race, government doctors and scientists brainwashed the public into believing low dose radiation is not harmful. Some officials even tried to convince people that “a little radiation is good for you.” Totally ignored is the knowledge that the radiation from nuclear fallout could lead to an increased risk of cancer, heart disease, neurological disorders, immune system disease, reproductive abnormalities, sterility, birth defects, and genetic mutations which could be passed on from generation to generations.

According to former Professor of Medical Physics and Physiology at the University of California, Berkeley, Dr. Hardin B. Jones, it's chemotherapy that kills people rather than cancer. Dr. Jones has extensively researched the life expectancy of cancer patients for more than 25 years, after he came to the conclusion that chemotherapy is more harmful than beneficial. All of that research, he conducted; lead him to believe that “leading edge” cancer treatment is a scam. Also, Dr. Jones is well aware that cancer is a billion dollar industry “People who refused chemotherapy treatment live on average 12 and a half years longer than people who are undergoing chemotherapy,” said Dr. Jones of his research, published in the New York.

As of 2012, Canada had over 56,000 tons of highly radioactive nuclear waste and nowhere to put it.

Perched on a remote stretch of coastline in north-west England is Europe's most dangerous building. Inside the innocuous-sounding Product Finishing and Storage Facility at the Sellafield nuclear plant is enough plutonium for about 20,000 nuclear bombs. It is the world's largest stockpile of civilian plutonium — one of the most toxic substances on the planet — accumulated from decades of reprocessing nuclear fuel from power stations not only in the UK but also Germany, France, Sweden and other countries. They must also decide whether it should be viewed as an asset or liability, is “sleepwalking” to disaster.

The meltdowns at the Fukushima Daichi Power plant are dumping 300-400 tons of contaminated material into the Pacific Ocean every single day. With a half-life of 220,000 years that nuclear waste will continue to destroy the Pacific for just about ever. There was no nuclear bomb let of by the Russians it is a hoax!!

The Iodine 131 is coming from Fukushima UNIMAGINABLE Nuclear Meltdown Being Covered Up!

The Japanese Government teamed up with Toshiba to build robots that could help clean up the highly radioactive site of the Fukushima power plant meltdown. It turned out the robots couldn't function in such high radiation levels: 600 Sievert per hour, which could kill a human being in about two minutes. Unfortunately, the “scorpions” didn't get very far. Earlier this month, a “scorpion” robot that was sent inside the meltdown site malfunctioned after just two hours because of high radiation levels. A second “scorpion” was sent in just last week, only to meet a similar fate as its predecessor: the machine's left crawler belt malfunctioned and the robot stopped working altogether.

Satellite image shows damage at Fukushima Nuclear Power Plant (via ecowatch.com)

Tepco's Fukushima No. 1 nuclear plant began operations in 1971 and was severely damaged by a deadly March 2011 earthquake and tsunami that killed over 15,000 people in Japan. The massive release of radiation forced the government to evacuate about 160,000 people and establish a 310-square mile exclusion zone deemed uninhabitable. Tepco has since embarked on an estimated \$188 billion cleanup

process that has included the treatment of contaminated water dumped on the site to prevent three out of six reactors from melting down completely.

It is clear to us now that the radiation level in the containment vessel of the crippled Reactor 2 is much higher than experts had believed.

The danger of Reactor 2 reminds the story of the potential collapse of Reactor 4 after the March 11, 2011, earthquake. That reactor contained 14,000 times the radiation of the Hiroshima bomb.

Fumiya Tanabe, an expert on nuclear safety who analyzed the 1979 Three Mile Island nuclear accident in the United States, said the findings show that both the preparation for and the actual decommissioning process at the plant will likely prove much more difficult than expected.

An official of the National Institute of Radiological Sciences said medical professionals have never considered dealing with this level of radiation in their work.

Fukushima disaster is totally out of control. This is a nuclear war without a war. Fukushima radiation has contained entire Pacific Ocean, Radiation detected in Europe and radiation at Fukushima reactors uncontrollable. Nuclear scientists ran away and never came back and Fukushima nuclear facility is a TICKING TIME BOMB.

If a terrorist group exploded just one dirty nuclear weapon, hundreds of thousands of people could die. Because there is no effective protection against nuclear terrorism, the only solution is to prevent terrorists from obtaining nuclear weapons, and the fissile materials needed to make them, in the first place.

Nuclear reactors and nuclear weapons derive power through the fission (splitting) of nuclei of uranium or plutonium atoms, a process that releases large amounts of energy. These fissile materials are used for a variety of civil and military purposes.

Enriching uranium is both technically difficult and expensive as it requires separating isotopes that have very similar chemical and physical properties. The enrichment process is thus the main barrier to producing uranium suitable for use in nuclear weapons.

However, as sophisticated enrichment technology spreads around the world, more groups will be able to overcome the technical barriers to producing HEU for weapons. Moreover, the commercial enrichment facilities used to make LEU fuel for power reactors can be reconfigured to produce HEU for weapons.

Without strong regulations in place, these dual-use facilities pose major risks of nuclear terrorism. In addition, the continued use of HEU for both civilian research and naval propulsion reactors increases the risk of terrorist access to this material.

Plutonium occurs only in trace amounts in nature. It is produced as a matter of course in power reactors when the uranium-238 in reactor fuel absorbs neutrons. Countries producing plutonium for weapons have generally operated their reactors to maximize the production of plutonium-239—the isotope most useful for nuclear weapons—and to minimize the production of other plutonium isotopes such as plutonium-240. Weapon-grade plutonium contains less than 7 percent plutonium-240. Under normal nuclear power plant operation, the plutonium in spent reactor fuel contains roughly 24 percent plutonium-240; such plutonium is often referred to as “reactor-grade.” However, essentially all isotopic mixtures of plutonium—including reactor-grade plutonium—can be used for nuclear weapons.

In order to use plutonium in nuclear weapons or nuclear fuel, however, it must be separated from the rest of the spent fuel in a reprocessing facility. Plutonium separation is easier than uranium enrichment because it involves separating different elements rather than different isotopes of the same element, and it uses well known chemical separation techniques. However, since the spent fuel is highly radioactive, this process requires heavily shielded facilities with remote-handling equipment.

In addition to lives and cancer threats there are huge amount of funds are required for uranium enrichment, transportation of enriched nuclear material, storage of nuclear materials, and fabrication of nuclear materials. Authorities defending peaceful use of nuclear energy and nuclear military deterrence are enjoying superior status along with financial benefits and repeated extensions in the name of nuclear safety and nuclear security at the cost of people all over the nuclear world.

During the early years of nuclear testing it was anticipated that nuclear weapons would be used on the battlefield, and that the Army and Marine Corps had better get used to operating on a “nuclear battlefield.” During the 1952 Big Shot test, 1,700 ground troops took shelter in trenches just seven thousand yards from the thirty-three-kiloton explosion. After the test, the troops conducted a simulated assault that took them to within 160 meters of ground zero. This test and others like them led to increases in leukemia, prostate and nasal cancers among those that participated.

U.S. nuclear testing ceased in 1992. In 2002, the Centers for Disease Control estimated that virtually every American that has lived since 1951 has been exposed to nuclear fallout, and that the cumulative effects of all nuclear testing by all nations could ultimately be responsible for up to eleven thousand deaths in the United States alone. The United States did indeed learn much about how to construct safe and reliable nuclear weapons, and their effects on human life and the environment. In doing so, however, it paid a terrible and tragic price.

This fact sheet covers specific problems relating to nuclear threats and the steps the IAEA and United Nations should take to address them.

United Nations and IAEA can effectively close the door to nuclear weapons of any kind By eliminating the production of HEU, and foregoing reprocessing technology to extract plutonium, They cannot produce any material to be used as a primary nuclear explosive .Nuclear World must be willing to accept far-reaching IAEA surveillance on all their nuclear facilities, including unannounced inspections by IAEA authorities. By imposing similar requirements on all nations, we could eliminate the production of nuclear material altogether. Then, when nuclear weapons are dismantled and the primary nuclear explosive materials are made inaccessible, a nuclear-weapons, nuclear energy and uranium ammunition free world would be within our grasp.

Muhammad Riaz Pasha is a nuclear scientist and former advisor/technical consultant at Pakistan Atomic Energy Commission and is a member of International Advisory Council of Nuclear Emergency Action Alliance with 28 years experience in covering key issues of enrichment, nuclear energy and nuclear fusion energy.

Issue of local approval ignored

June 5, 2017

EDITORIAL: Support of areas within 30-km zone vital for reactor restarts

<http://www.asahi.com/ajw/articles/AJ201706050017.html>

Several more offline nuclear reactors are now on track to be restarted in the coming months despite lingering safety concerns among residents living in surrounding areas.

Kyushu Electric Power Co. plans to restart two reactors at its Genkai nuclear power plant in Saga Prefecture as the prefecture's governor and the mayor of Genkai, the town where the plant is located, gave their consent to the utility's plan this spring.

Kansai Electric Power Co. is going through the process of restarting two reactors at its Oi nuclear plant in Fukui Prefecture, which effectively passed the regulatory inspections by the Nuclear Regulation Authority in May. The company will now seek the approval of its plan by the Fukui governor and the mayor of Oi, the town hosting the plant.

Many local government chiefs and residents within 30 kilometers of these nuclear plants have voiced opposition to the planned reactor restarts. Local governments inside the 30-km zone are required to craft plans for the evacuation of local residents in the event of a serious nuclear accident.

But the electric utilities have turned a deaf ear to their voices. That's because the operators of nuclear plants only ask for the approval of the host municipalities and prefectures when they seek to bring offline reactors back on stream.

If reactors are brought back online through the same procedures as those used before the catastrophic accident that hit the Fukushima No. 1 nuclear power plant in 2011, it will be difficult for people living in areas around nuclear plants not to feel anxiety.

We strongly urge the operators of nuclear plants to widen the definition of the "local communities" involved in the approval process so that at least the entire 30-km zone is covered.

NO DIFFERENCE IN DAMAGE CAUSED BY NUCLEAR ACCIDENT

There is no legal basis for the rights of the host local governments to approve plans to operate nuclear power plants. They are mainly based on safety agreements between the local governments and the plant operators, which include a provision concerning "advance consent" by the local governments.

Last summer, Yoshikazu Tsukabe, mayor of Imari, a city of 55,000 located within 30 km of the Genkai plant, unequivocally expressed his opposition to Kyushu Electric Power's plan to bring the reactors back online.

When Tsukabe visited Minami-Soma, a city in Fukushima Prefecture within 30 km of the crippled Fukushima plant, in 2013, it hit home to him that there is no difference in the seriousness of damage that the host municipalities and areas around them would suffer when a major nuclear accident occurs. Then, Tsukabe asked Kyushu Electric Power to conclude a safety agreement with Imari including an advance consent provision similar to the ones it has with the host municipalities. But the company refused his request.

"No matter how strongly we oppose (the utility's plan to restart the reactors), we are left out in the cold," Tsukabe says.

"But we are nevertheless forced to face the risk of a serious accident. That's too unfair," he adds indignantly.

The mayors of three cities in Nagasaki Prefecture, which are located near the Genkai plant, have also voiced their opposition to the utility's plan. But even the governor of the neighboring prefecture has no right to grant consent to such a plan.

Since 2015, reactors at the Sendai (Kagoshima Prefecture), Ikata (Ehime Prefecture) and Takahama (Fukui Prefecture) have been restarted only with the consent of the host municipalities and prefectures. Kyoto and Shiga prefectures, which are adjacent to Fukui Prefecture, have been demanding that they, too, be involved in the process of local approval.

The city of Hakodate, Hokkaido, has filed a lawsuit seeking a court injunction to stop the ongoing construction of the Oma nuclear power plant in Aomori Prefecture, which is located 23 km from the city

across the sea. The suit effectively asks why an area near a nuclear power plant that could be damaged if an accident occurs at the plant is not regarded as a concerned “local community.”

VIGILANT LOCAL COMMUNITIES FOR BETTER SAFETY

Asahi Shimbun editorials have called for widening the scope of the local communities that have the right to grant consent to plans to restart nuclear reactors. That’s because we believe that the safety of nuclear reactors would improve if more local governments are involved in their safety checks as part of the consent process. That would also boost local residents’ confidence in the safety of the reactors in their areas.

The administration of Prime Minister Shinzo Abe has argued that the Nuclear Regulation Authority’s inspections are enough to confirm the safety of reactors. The administration claims the nuclear watchdog checks the safety of reactors according to the strictest nuclear regulatory standards in the world.

But Japan’s new nuclear safety standards, introduced after the Fukushima disaster, cover only four of the five levels of “defense in depth” advocated by the International Atomic Energy Agency. The fifth level is mitigation of the radiological consequences of off-site releases of radioactive materials.

It is, so to speak, the last line of defense against a full-scale nuclear disaster in the event of failure of the four preceding levels of defense resulting in massive releases of radioactive materials into the environment. Specifically, it involves evacuating local residents to protect them from exposure to radiation.

Following the accident at the Fukushima plant, the central government made it mandatory for local governments inside the 30-km zone to develop plans for the emergency evacuation of local residents in such situations.

If so, the local governments should be given the right to call a stop to a plan to restart a reactor. They should be allowed to take the step when, instead of relying totally on the central government for confirming the safety of the reactor, decide that the safety of the reactor in question and the effectiveness of the evacuation plan are not sufficiently ensured.

Making such a decision requires expertise. It would help to set up a task force of experts as Niigata Prefecture has done. The prefectural government has been making its own efforts to investigate the Fukushima nuclear disaster with the help of experts.

DIET SHOULD DISCUSS THE ISSUE

Most local governments hosting nuclear power plants take a dim view of the proposal to widen the scope of the local approval program.

The host local governments have been receiving great fiscal and economic benefits from having nuclear plants, including state subsidies based on three laws related to power sources and job creation.

These prefectures and municipalities are concerned that an increase in the number of local governments with the right of consent would make it harder to operate reactors.

Toshiyuki Kanai, a professor at the University of Tokyo specializing in local government operations, argues that the original aims of safety agreements between utilities and local governments should be recalled.

In the 1960s, local governments hosting nuclear plants started seeking safety agreements with the plant operators to prevent them from concealing information about accidents and problems. In these moves, they tried to enhance local residents’ safety and sense of security by ensuring their own right to get the operators to listen to what they have to say, if necessary.

“If there is a local government concerned about the safety of a reactor, a wide range of local communities around it should join together to have discussions on the source of the concern,” says Kanai. “That would also help the host local government.”

Kanai points to the need to establish a system that ensures there is no difference in the benefits host local governments receive whether the reactors are operating or not. This is necessary for allowing host local governments to make neutral judgments about the safety of reactors.

It is the duty of the central government to devise such a system.

The Abe administration has been staying away from the issue of local consent. Economy, Trade and Industry Minister Hiroshige Seko has said the scope of the local governments allowed to give their consent to reactor plans should not be uniformly determined by the central government.

But the administration should not continue neglecting the rift between the two sides--nuclear plant operators and the host local governments versus local governments in surrounding areas. It should not simply let utilities restart reactors without paying serious attention to objections from surrounding local governments.

There are possible ways to deal with the issue, including legally requiring utilities to obtain the consent of all local governments within the 30-km zone as a condition for restarting a reactor.

Six years after the Fukushima calamity, the Diet should start a serious debate on the issue as one of the important challenges concerning nuclear safety that has remained unaddressed.

A first: TEPCO to compensate Namie

June 6, 2017

Fukushima town to receive compensation

https://www3.nhk.or.jp/nhkworld/en/news/20170606_03/

NHK has learned that a town near the Fukushima Daiichi nuclear power plant is to receive compensation for a drop in the value of its land that was caused by the 2011 nuclear accident.

The plant's operator, Tokyo Electric Power Company, will pay Namie Town 2.5 billion yen, or more than 22 million dollars.

This is the first time that the operator has agreed to compensate a municipality for assets that were affected by the accident.

In June of last year, Namie officials asked the company to pay about 104 million dollars in compensation for damage to 262 hectares of land owned by the town. Evacuation orders for parts of the town remained in effect for over 6 years.

The officials say they will negotiate with the power company over the remainder of the requested amount.

The Fukushima prefectural government says the town of Futaba has made a similar request and that other municipalities may follow suit.

Tokyo Electric is paying individuals and businesses compensation for damage to properties located in areas where evacuation orders were issued.

Retreat from Olympics

June 15, 2017

Dear Friends,

On 17 June from 13:00, Hiroshi Kume, famous radio commentator is presenting a wide-show program entitled "Should we retreat from the the Tokyo Olympic Games 2010 ?" Olympic Gold Medal marathon runner Ms. Hiroko Arimori will be present. Mr. Kume and Ms. Arimori have been opposing the Tokyo Olympic Games. The program will conduct a nation-wide referendum among the listeners. It is an extremely opportune and significant program.

The present situation in Japan is based on hiding Fukushima. The media have abandoned their mission.

The awaited decision to retreat from the Olympic now seems to be the only way to awaken Japan and the world.

I am firmly convinced that it is inevitable. Its impact is beyond imagination.

I am sending you a communication on June 14 from the Natural Solutions Foundation, reflecting the growing concern of the International Community.

"We have posted your eBook at the Institute for Health Research Journal web site.

<http://www.inhere.org/InHeRe.Journal.html> "

Please allow me to count on your understanding and support.

Mitsuhei Murata

Former Ambassador to Switzerland

Retreat from Olympics (2)

June 17, 2017

Dear Friends,

The results of the nation-wide referendum among the listeners conducted on 17 June by the Hiroshi Kume's wide-show program entitled "Should we retreat from the the Tokyo Olympic Games 2010 ?" are extremely impressive. All age categories except "under 19 years old" have overwhelmingly supported the retreat from the 2020 Olympic Games. The results could not but have a far reaching impact on this vital issue. The future of Fukushima depends on it.

This development coincides with another significant one. In a surprise move, the International Olympic Committee announced on 16 June that it was ending its Olympic sponsorship deal with McDonald. The fast-food giant pulled out of its current, estimated £ 40-million-a-year, deal with the International Olympic Committee more than three years early, citing a "focus on different priorities", severing a relationship that dated to 1976.

A new page is being opened as regards the Olympic Games 2020.

Mitsuhei Murata
Former Ambassador to Switzerland

Freedom of the press?

June 10, 2017

Arrogant Abe disrespects U.N. and the press

<http://www.japantimes.co.jp/opinion/2017/06/10/commentary/arrogant-abe-disrespects-u-n-press/#.WTv8qNykJLM>

by Jeff Kingston
Special To The Japan Times

What is with Prime Minister Shinzo Abe's arrogant disrespect for the United Nations? Chief Cabinet Secretary Yoshihide Suga spread fake news by insisting that the U.N. Secretary General Antonio Guterres endorsed Japan's much-maligned "comfort women" deal with South Korea even after his spokesman, Stephane Dujarric, who was in Italy with Guterres when he met Abe, emphatically denied this. The South Korean government reported that it confirmed with Guterres directly that he had not endorsed the deal. Suga's disinformation may be aimed at discrediting the U.N. Committee Against Torture's recent call for revisions of the comfort women accord.

David Kaye, a professor of law at the University of California-Irvine and special rapporteur for the U.N. Human Rights Council, called Abe out on his government's incivility towards U.N. representatives. Abe is miffed that Kaye and other U.N. representatives have voiced criticisms about the erosion of press freedom and the freedom of expression, in addition to conspiracy legislation that threatens the right to privacy and the right to dissent. These are legitimate concerns widely shared by Japanese about how democratic

norms and values are being sacrificed in favor of the surveillance state, and where Abe is leading the nation.

As the Japan Federation of Bar Associations notes, the government is wrong to maintain that the conspiracy legislation is necessary for Japan to live up to its commitments under the U.N. Convention against Transnational Organized Crime. It is also wrong to claim that adopting the conspiracy legislation is necessary for Japan to gain access to intelligence about international terrorism. Scare-mongering about preventing terrorism at the 2020 Tokyo Olympics aims to distract attention away from the ongoing assault on civil liberties. The police already have the powers and laws needed to combat terrorism without handcuffing democracy.

In May, as tens of thousands of demonstrators around the nation decried the Draconian provisions, Joe Cannataci, the U.N. rapporteur on the right to privacy, expressed concerns about the sweeping nature of the powers granted that threaten the right to privacy. Cabinet secretary Suga dismissed Cannataci's remarks, asserting that he was merely speaking in a private capacity. In fact, he was carrying out his duties. The government also denounced Kaye for doing his job, saying he "degrades the authority of the U.N. Human Rights Council."

Kaye recently submitted his report on press freedom in Japan to the U.N. Human Rights Council. Kaye has been a target of government criticism since April 2016, when he submitted a scathing draft report that highlighted government intimidation of journalists, self-censorship and the press-club system, all of which enable the government to manage the mainstream news. The government engaged in damage control, arguing that Kaye didn't meet the right people, didn't understand the context and failed to give credence to official rebuttals.

At a recent Tokyo symposium sponsored by the Committee to Protect Journalists, Kaye cited the International Covenant on Civil and Political Rights' Article 19, which protects the people's right to know. This right is crucial to good governance and accountability, and is why it is essential to protect journalists, because they protect the public by letting them know what the authorities would rather they not know. Citizens' ability to participate meaningfully in public life and hold government accountable, he argued, rests on the efforts of responsible journalists to access information and promote transparency. In a democracy the media watchdog must be able to bark, and to the extent it is muzzled, citizens' democratic rights are threatened.

Kaye emphasized that the challenges to a free press are global and the forces of darkness are gathering as governments around the world justify restrictions on civil liberties in terms of combating violent extremism. Terrorism and public safety are typically invoked to muzzle the press, stifle dissent, curb civil liberties, arrest reporters, block access to the internet and adopt draconian surveillance laws.

In his final report, Kaye heralds "a high degree of freedom online," but expresses concerns about the vaguely worded Specially Designated Secrets Law enacted in 2014, the potential for abuses and how it might impinge on freedom of expression given inadequate protections under the Whistleblower Protection Act. He also lodged a protest with the government after he "became aware of allegations that the government ordered intelligence community members to monitor at least one member of civil society who helped coordinate meetings." For Kaye it was striking that most of the journalists who confided in him requested anonymity for fear of retaliation by their own management, highlighting the absence of any independent body to protect them from such reprisals.

Japanese journalists, media organizations and civil society groups told Kaye about threats to freedom of expression, including the "opaque and clique-plagued system of press clubs" that enforces norms of "access and exclusion," self-censorship and access journalism. The latter encourages lapdog reporting to curry favor with those in power.

Kaye draws attention to broadcast regulations, pointing out that they are not independent from the party in power and are thus subject to abuse in ways that intimidate the media. He also reports about the apparent ouster of respected pundits from their broadcasting duties, and the spiking of stories and demotions of reporters as examples of the pressures exerted by the Abe government against its critics. Moreover, he notes allegations that the current political leadership has backed orchestrated campaigns of harassment targeting liberal critics, singling out the Asahi Shimbun in particular.

At the symposium Martin Fackler, former bureau chief of The New York Times in Tokyo, lamented that most Japanese journalists are company employees first, and avoid taking risks, and that media-wide solidarity and commitment to a professional ethos is lacking.

Regarding lapdog journalism, what are we to make of NHK and the Yomiuri helping Abe out over the Kake Gakuen vet school scandal? The Yomiuri's effort to tarnish the name of Kihei Maekawa, a former top education bureaucrat who alleges Abe did a favor for crony Kotaro Kake, the school's owner, is unseemly. Reports about Maekawa frequenting singles bars are irrelevant to the testimony Abe is trying to prevent him giving in the Diet on the issue.

Meanwhile, NHK shamelessly sidelined the story, giving short shrift to official papers implicating the prime minister's office and focusing instead on Princess Mako. Fortunately, other media outlets are making these press poodles look decidedly lame, finally forcing NHK to find its journalistic backbone, at least on this scandal.

Jeff Kingston is the director of Asian Studies, Temple University Japan.

NRA should be careful not to take the side of nuke companies

June 14, 2017

Future nuclear watchdog chief faces criticism for calling reactor '40-year rule' too short

<https://mainichi.jp/english/articles/20170614/p2a/00m/0na/012000c>

A statement by a future commissioner of the Nuclear Regulation Authority (NRA) about the heavily debated "40-year rule" for the operation of reactors is facing criticism for being inappropriate.

- **【Related】** Japan's nuclear watchdog chief to step down after term ends in September
- **【Related】** Another operation approval of aging nuclear reactor contradicts 40-year rule
- **【Related】** Editorial: Japan should phase out aging nuclear reactors
- **【Related】** Nuclear watchdog's green light for aging reactors waters down 40-year rule

Osaka University Vice President Shinsuke Yamanaka, who will join the NRA this September, stated at a press conference on June 13, "When you look at examples around the world, I personally think (the 40-year rule) is a little short."

The "40-year rule" was added to the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors following the outbreak of the nuclear disaster in Fukushima in 2011. It puts a 40-year limit on the amount of time a reactor can be operational. However, under the law, with the permission of the NRA, the limit can be extended an additional 20 years as an "exception," and three reactors have already received permission to bypass the rule.

Amidst worries that such exceptions treat the "40-year rule" as a mere formality and compromise safety, Yamanaka is facing criticism for his comment. "As a member of the regulatory body responsible for strictly overseeing the safety of nuclear power plants, a statement that takes the side of electric companies and researchers promoting the use of nuclear power is inappropriate," stated Kyushu University professor Hitoshi Yoshioka.

Yamanaka also stated to the media that "while safety is fundamental, an appropriate sense of speed is also necessary," and that he would like to "vigorously move forward with (his) duties to properly ensure safety, not forgetting the lessons learned during the Fukushima No. 1 Nuclear Power Plant disaster." The 61-year-old Yamanaka is a specialist in the research of nuclear fuel material safety. He will fill the position of commissioner previously held by Toyoshi Fuketa for the remaining three years of his term. Fuketa will become the new chairman of the NRA in September when Shunichi Tanaka steps down from the position.

Another accident...

June 18, 2017

Another radiation exposure accident

<http://www.japantimes.co.jp/opinion/2017/06/18/editorials/another-radiation-exposure-accident/#.WUZjjFFpyos>

A radiation accident earlier this month at the Japan Atomic Energy Agency's facility in Oarai, Ibaraki Prefecture, underlines the need for operators of facilities handling radioactive substances to make sure there are no flaws in their safety systems and procedures. Such caution is all the more important since Japan will have to manage large amounts of radioactive substances in decommissioning nuclear power reactors, including the agency's fast-breeder reactor Monju, which the government decided last December to take out of service.

The accident occurred when five workers were taking stock of 300 grams of uranium oxide and plutonium oxide put in a cylindrical stainless steel container at the Plutonium Fuel Research Facility in the agency's Oarai Research and Development Center. The powdery substances had been encased in a double-wrapped plastic bag placed inside the container, whose lid was fastened with six bolts. When one of the workers opened the lid, the black powder sprayed out under pressure, exposing the men to radiation. The five workers were admitted to the National Institute of Radiological Sciences's hospital in Chiba for treatment. The fiasco brings to mind the 1999 criticality accident at a nuclear fuel processing facility operated by JCO Co. in Tokai, Ibaraki Prefecture, which killed two workers — the worst nuclear radiation accident in Japan prior to the 2011 meltdowns at the Fukushima No. 1 power plant. The fatal accident occurred when three workers were preparing a small batch of nuclear fuel using uranium enriched to 18.8 percent. They were handling the nuclear fuel in stainless steel buckets. The company apparently failed to give workers proper safety training, and sloppiness was the clear cause of the accident.

Sloppiness cannot be ruled out in the Oarai facility accident either. It must be noted that the incident occurred when the agency initiated work to examine the radioactive substances following an order by the Nuclear Regulation Authority to improve its operations. The NRA issued the order to the Oarai facility and six other facilities handling radioactive substances after it found that they had kept spent uranium and

plutonium over an extended period in equipment not designed for long-term storage, in violation of the regulations. In one case, radioactive substances had been stored this way for more than 35 years.

The container at the Oarai facility had not been opened for 26 years. Plutonium emits alpha particles, which are helium nuclei, and it decays or transforms into a different type of radioactive substance. It is suspected that the extended storage caused helium, which was formed as a result of the plutonium's alpha decay, to fill the container and pressurize the contents. The agency had no guidelines on how frequently the substances inside the container should be examined. In this connection, it must be pointed out that Japan has no official rules on the final disposal of radioactive substances used for research purposes like those at the Oarai facility.

In the room where the radiation exposure accident occurred, 55 becquerels of radioactive substances were detected — roughly 14 times the allowed limit of 4 becquerels. It was also found that the five workers were kept in the room for three hours following the accident until preparations for decontamination work were completed. One wonders whether the agency could not have acted more quickly. The five workers had been wearing masks, gloves and other protective gear when the accident occurred. It must be determined whether the agency had trained them in the proper use of the gear as they may have inhaled radioactive substances through small gaps between the masks and their faces. At first, the agency reported that up to an unprecedented 22,000 becquerels of plutonium was detected in the lungs of the worker who opened the container — which translates into 1.2 sieverts over a year, far above the maximum of 0.05 sievert per year allowed by the government for designated nuclear workers. But later the agency corrected the report by saying that the plutonium may have been on his skin, not in his lungs. This raises the possibility that the agency failed to adequately decontaminate the worker's skin.

A series of troubles at the Monju reactor since the leakage of sodium coolant in 1995 highlighted the lack of safety consciousness on the part of the agency and its predecessor. The Oarai accident points again to the same problem. The agency should fully disclose all information pertaining to the accident. To ensure safety, its operations should also be thoroughly examined, including the condition of stored radioactive substances and the work procedures for handling such materials. All the facilities in Japan using radioactive substances should follow suit. The NRA's responsibility to oversee these facilities is heavy.

TEPCO's new board

June 23, 2017

New Tepco chief reaffirms Fukushima commitment, but underscored need for plant restarts

<http://www.japantimes.co.jp/news/2017/06/23/business/corporate-business/new-tepco-chief-reaffirms-fukushima-commitment-underscored-need-plant-restarts/#.WU6G4FFpyos>

by Shusuke Murai

Staff Writer

Dealing with the aftermath of nuclear disaster at Fukushima No.1 power plant remains the most important mission for Tokyo Electric Power Company Holdings Inc., Tomoaki Kobayakawa, Tepco's new

president, said Friday, but he also stressed the need to restart nuclear plants for the sake of continuing the utility's business.

"To fulfill responsibilities over (disaster in) Fukushima is the fundamental (policy) for our company, and that will never change at all," Kobayakawa, the former chief of the Tepco's electricity retail arm, said at a news conference at the firm's headquarters in Tokyo.

Kobayakawa officially took the helm as head of the ailing power giant after the reshuffle of top management was approved at a shareholder's meeting earlier on Friday.

Struggling financially amid ballooning costs for dealing with the aftermath of the nuclear accident caused by the devastating earthquake and tsunami in 2011, Tepco is effectively under control of the state with the state-backed Nuclear Damage Compensation and Decommissioning Facilitation Corp. holding the majority of its shares.

Ten of 13 board directors were replaced with new members, including honorary chairman of Hitachi Ltd. Takashi Kawamura. Kawamura was appointed the new chairman to back Kobayakawa.

Under the new board, Tepco will proceed with the new revitalization program it mapped out in May. The plan includes reactivating Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture, so as to make up for the estimated ¥22 trillion cost of dealing with damage, including decommissioning of Fukushima No.1 and compensation for disaster-hit areas.

"I believe securing safety and gaining the understanding of local people are our utmost priorities" in order to reactivate the nuclear plant, Kobayakawa said.

In October 2016 in the Niigata gubernatorial election, voters elected doctor and lawyer Ryuichi Yoneyama, whose anti-nuclear stance is firmly against any restart of Kashiwazaki-Kariwa plant, over a pro-nuclear candidate from the Liberal Democratic Party.

At the shareholder's meeting in Tokyo's Shibuya Ward earlier Friday, which was attended by about 1,200 people, some expressed diverse opinions on the company's intention to restart nuclear power plants. One suggested that restarting a nuclear power plant could be a "ray of hope" that stands as the symbol of recovery from the disaster, while another claimed Tepco's financial recovery will "never be possible" without reactivating ceased plants.

Others were concerned about the firm's plan to continue its nuclear power business.

One shareholder called the proposed restart of the Kashiwazaki-Kariwa plant as "a long-shot gamble" repeatedly saying that the Niigata plant is "good-for-nothing", and that it has only caused the utility to incur costs of ¥680 billion for safety measures.

Another shareholder urged the utility to abandon its plan to reactivate Fukushima No.2 and Kariyazaki-Kariwa, and open them for engineers worldwide to use as research centers for decommissioning technologies.

These proposals were turned down at the end of the three-hour meeting after facing opposition from board members.

US sailors

June 23, 2017

Court: Sailors can sue in U.S. over 3/11 Fukushima nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201706230015.html>

THE ASSOCIATED PRESS

SAN FRANCISCO--A federal appeals court says members of the U.S. Navy can pursue their lawsuit in a U.S. court alleging radiation exposure from Japan's Fukushima No. 1 nuclear power plant.

The 9th U.S. Circuit Court of Appeals in San Francisco ruled Thursday that the sailors for now don't have to make their legal claims in Japan.

Their lawsuit accuses Tokyo Electric Power Co. and the Japanese government of conspiring to keep secret the extent of the radiation leak following a 2011 earthquake and tsunami that killed thousands of people. The plaintiffs arrived off the coast of Fukushima aboard the U.S.S. Ronald Reagan and other vessels to provide humanitarian aid a day after the quake.

They filed their lawsuit in 2012 in federal court in San Diego.

An email to an attorney for Tokyo Electric was not immediately returned.

See also

<http://www.japantimes.co.jp/news/2017/06/23/national/crime-legal/9th-circuit-court-navy-sailors-can-sue-u-s-fukushima-disaster-radiation-exposure/#.WVEILIFpyos>

Nobody was killed...

June 26, 2017

Japanese government conveys regret over Moon's Fukushima nuclear crisis remarks

<http://www.japantimes.co.jp/news/2017/06/26/national/japanese-government-conveys-regret-moons-fukushima-nuclear-crisis-remarks/#.WVI6EFFpyos>

JJI

SEOUL – The government has expressed regret over recent remarks by South Korean President Moon Jae-in about the March 2011 crisis at the Fukushima No. 1 plant, according to sources.

“The accident in 2011 at the Fukushima nuclear power plant brought the death toll to 1,368 as of March 2016,” Moon said in a speech June 19 in which he announced plans to review South Korea’s nuclear power policy comprehensively based on lessons from the Fukushima accident.

The Japanese government told a counselor at the South Korean Embassy in Tokyo that “the remark is very regrettable as it is not based on a correct understanding of the accident,” informed sources said Monday.

The regret was conveyed Thursday, according to the Japanese Foreign Ministry.

After Moon made the remark, some people pointed out that the comment could cause misunderstanding since it has no clear basis.

A ministry official said Japan will boost its efforts to provide correct information about the accident in order to dispel harmful rumors.

The plant operated by Tokyo Electric Power Company Holdings Inc. was heavily damaged in the March 2011 earthquake and tsunami, with three reactors suffering a meltdown. Nobody was killed directly in the accident.

Also in the speech, delivered at a ceremony to mark the closure of the oldest nuclear reactor in South Korea, Moon said, "Worse yet, it is impossible to even grasp the number of deaths or cancers caused by radioactive contamination."

In documents released Friday to explain Moon's remarks, the South Korean Ministry of Trade, Industry and Energy said some Japanese media reported on March 6 last year that 1,368 people had died during protracted life in evacuation.

An interim report on health surveys on Fukushima residents that was compiled in March 2016 by the prefectural government said cases of thyroid cancer that had been detected in the prefecture since the accident are unlikely to have been caused by effects from radiation.

The report also said that external exposure suffered by Fukushima residents are not at levels that pose health hazards.

Pleading not guilty...

Ex-Tepco execs plead not guilty as trial starts over Fukushima crisis

June 30, 2017 (Mainichi Japan)

<https://mainichi.jp/english/articles/20170630/p2g/00m/0dm/043000c>

TOKYO (Kyodo) -- Former top company officials responsible for the Fukushima Daiichi power plant pleaded not guilty Friday as they stood trial for their alleged failure to prevent the nuclear meltdown disaster triggered by the 2011 tsunami.

Appearing before the Tokyo District Court for the first criminal trial over the disaster, Tsunehisa Katsumata, 77, then chairman of plant operator Tokyo Electric Power Co., started with an apology but added, "It was impossible to predict the accident."

Two former vice presidents also pleaded not guilty in line with the expected argument of the former officials' defense counsel -- that there was no way to foresee the massive tsunami waves, triggered by a magnitude-9.0 earthquake, which engulfed the coastal power plant and crippled key reactor cooling functions.

With major investigations into the worst nuclear disaster since Chernobyl already completed by the government, Tepco and other entities, the trial is seen as the last chance to shed light on whether the accident was preventable and why the operator had not acted on 2008 data that warned of the risks of massive tsunami.

It took Fukushima residents and their supporters more than five years to bring the three former key officials before a criminal court, as prosecutors twice decided not to charge them.

After the prosecutors' decision was overturned by an inquest of prosecution made up of ordinary citizens for a second time, Katsumata and the two other defendants -- Ichiro Takekuro, 71, and Sakae Muto, 67 -- were finally indicted last year.

The three former executives are facing charges of professional negligence resulting in injury to people at the site as well as the death of dozens of patients who were forced to evacuate from a hospital near the plant.

On March 11, 2011, huge tsunami waves swamped the six-reactor plant, located on ground 10 meters above sea level, and flooded power supply facilities. Reactor cooling systems were crippled and the Nos. 1 to 3 reactors suffered fuel meltdowns, while hydrogen explosions damaged the buildings housing the Nos. 1, 3 and 4 units.

The case, overseen by a panel of three judges with a group of specially appointed lawyers acting as prosecutors, is not expected to see a ruling before next year.

At the hearing, the specially appointed lawyers argued that the three former officials could have foreseen the possibility of the plant being inundated by huge tsunami waves, based on a tsunami estimate produced by a Tepco subsidiary in March 2008.

The data showed the plant could be hit by up to 15.7-meter-high tsunami. The lawyers said the subsidiary proposed to Tepco the following month a specific measure to enhance the plant's preparedness, which was to "build a 10-meter-high seawall" on the same site where the reactor buildings stand.

"We will argue that the three clearly failed to perform their duty of care by showing they downplayed (the significance) of the estimate, neglected information-gathering and sharing, and were not aware of the need to take measures," they said.

They also said that at a meeting in 2009, the three had been informed of the risk of 14-meter-high tsunami by Masao Yoshida, then in charge of nuclear equipment issues. Later as head of the Fukushima power station, Yoshida led the heroic efforts to stabilize the tsunami-ravaged plant with co-workers called the "Fukushima 50."

"The three should have been able to predict that the plant would be hit by tsunami on a scale that would overwhelm the site," the lawyers said.

Past investigations have shown that the 2008 data was relayed to Takekuro and Muto, who were in charge of Tepco's nuclear business at the time. Katsumata, however, told prosecutors that he had "no memory of being briefed" about the information.

The major reason prosecutors decided not to pursue a criminal case was their belief that the nuclear accident was unavoidable, even if the three executives had decided to introduce tsunami countermeasures based on the 2008 data.

The estimate suggested the need to build a seawall on the south side of the plant, covering about 300 meters of coastline. But in March 2011, tsunami around 14 and 15 meters high flowed from the east side of the plant, facing the Pacific Ocean, affecting a far longer stretch of coastline.

Following the disaster, at least 150,000 people in Fukushima were forced from their homes amid radiation fears. While some have returned to their homes, Tepco and the government face enormous challenges in scrapping the crippled reactors.

Saddled with massive compensation payments and radiation cleanup costs, the plant operator received a government bailout and was restructured as Tokyo Electric Power Company Holdings Inc.

Moves to take Tepco executives and government officials to court began in 2012, with a group led by Fukushima citizens filing a criminal complaint against over 50 of them. But only Katsumata, Takekuro and Muto were indicted, without being taken into custody.

The first hearing of the trial drew attention from the public and media, with about 720 people vying for 54 gallery seats. Some people who are suing Tepco for compensation and their supporters were seen holding banners near the court saying "We don't need nuclear power plants."

Ruiko Muto, a native of Fukushima who leads the plaintiffs' group, has expressed hope that the trial will deliver justice.

"The accident has affected the lives of hundreds of thousands of people. No matter how many years it may take, we expect the trial to be a meaningful one that makes clear who was responsible."

See also :

<http://www.asahi.com/ajw/articles/AJ201706300043.html>

TEPCO executives' trial

July 1, 2017

Anti-tsunami policy shift key to criminal trial of ex-TEPCO execs

<https://mainichi.jp/english/articles/20170701/p2a/00m/0na/031000c>

July 1, 2017 (Mainichi Japan)

In this March 11, 2011 file photo, waves are seen washing over a 10-meter-high breakwater and approaching the Fukushima No. 1 nuclear plant. (Photo courtesy of Tokyo Electric Power Co.)

The key point of contention in the criminal trial of former top Tokyo Electric Power Co. (TEPCO) executives over the 2011 nuclear crisis will likely be their decisions on tsunami prevention measures after the utility itself estimated in 2008 that tsunami with a maximum height of 15.7 meters could hit its Fukushima No. 1 nuclear plant.

- **【Related】** Ex-Tepco execs plead not guilty as trial starts over Fukushima crisis
- **【Related】** Former TEPCO worker turned monk on remorse-driven pilgrimage
- **【Fukushima & Nuclear Power】**

Former TEPCO Chairman Tsunehisa Katsumata and former vice presidents Ichiro Takekuro and Sakae Muto were slapped with mandatory indictments by lay reviewers after public prosecutors twice decided not to press charges. Their trial began on June 30, when all three pleaded not guilty and emphasized that it was impossible for management to predict the nuclear accident.

In his opening statement, lawyer Hiroshi Kamiyama, who has been appointed prosecutor by the court, slammed the TEPCO ex-managers, saying, "After TEPCO learned that over 10-meter-tall tsunami could hit the plant, the company put off countermeasures and irresponsibly continued to operate the facility as was."

The key question in the nuclear crisis investigation had been whether the 2002 long-term assessment report by the government's Headquarters for Earthquake Research Promotion stating that massive tsunami could occur off the Pacific Coast from the Sanriku to the Boso areas, was sufficiently credible to require TEPCO to implement countermeasures. The Tokyo District Public Prosecutors Office in September 2013 dropped a criminal case against the former TEPCO management, arguing that the assessment was "not academically developed enough."

In response, Kamiya and other court-appointed attorneys argued during the June 30 hearing that those in charge of nuclear power facility management in fact tried to map out tsunami countermeasures based on the 2002 assessment, but TEPCO as a company put off implementing them.

Based on the government's 2002 assessment, a TEPCO-affiliated company in March 2008 reported to the utility headquarters that tsunami with a maximum height of 15.7 meters could strike the Fukushima No. 1 plant. TEPCO officials at the nuclear power facility management department immediately ordered the affiliated firm to determine how tall a levee was required to prevent flooding of the plant, which stands 10 meters above sea level. The firm reported that a 10-meter-tall seawall would be necessary.

These figures were then reported to then Fukushima plant chief Masao Yoshida and then vice president Muto, who was in charge of the matter at the time. Muto, however, asked the Japan Society of Civil Engineers to re-evaluate the tsunami height estimates, and shelved countermeasures at TEPCO facilities as a whole.

The prosecution also pointed out that this "policy shift" continued to be debated within the utility. A note saying "tsunami prevention measures cannot be avoided" was circulated at a September 2008 meeting,

and Yoshida told a February 2009 executive meeting -- attended by the three defendants -- that "some say tsunami of about 14 meters tall could hit the plant."

However, lawyers for the former executives argued that contrary to the prosecution's assertion of "a policy shift" in tsunami countermeasures, TEPCO had not set a particular policy to begin with. They insisted that the 15.7-meter tsunami estimate was a "trial calculation," squarely denying the prosecution's argument. Amid this clash, witness testimony on how the matter was understood within the utility's ranks will be key.

Parties related to civil lawsuits over the nuclear crisis are paying close attention to the criminal trial, as many major points of dispute overlap.

The Maebashi District Court in March handed down the first ruling of the roughly 30 class action law suits filed by nuclear evacuees and other parties, in which the court acknowledged the liability of both TEPCO and the Japanese government. The Chiba and Fukushima district courts are expected to hand down rulings in other civil cases by the end of the year.

Lawyer Hideaki Omori, co-head of the legal team representing those affected by the Fukushima nuclear meltdowns, says that many details have yet to be uncovered, such as what discussions were held within TEPCO over tsunami countermeasures. He adds, "While criminal trials look into individual responsibility, the responsibility of the three defendants, who were at the center of the organization, is equivalent to that of TEPCO."

TEPCO declined to comment on the criminal trial.

TEPCO executives' trial (NHK video)

July 4, 2017

Trial Begins for Former TEPCO Execs

<https://www3.nhk.or.jp/nhkworld/en/news/videos/20170630170458146/>

Expensive reprocessing

July 4, 2017

Cost of building nuclear fuel reprocessing plant up 4-fold

<http://www.asahi.com/ajw/articles/AJ201707040050.html>

A spent nuclear fuel reprocessing plant in Rokkasho, Aomori Prefecture, that is being constructed by Japan Nuclear Fuel Ltd. (Asahi Shimbun file photo)

Construction costs for the long-delayed spent nuclear fuel reprocessing plant in Rokkasho, Aomori Prefecture, are likely to rise to 2.9 trillion yen (\$25.67 billion), about four times the initial estimate, Japan Nuclear Fuel Ltd. (JNFL) has disclosed.

The company attributes the latest cost estimate increase of 750 billion yen, revealed July 3, to the necessity of meeting more stringent safety standards introduced after the 2011 nuclear crisis in Fukushima Prefecture.

Estimated construction costs previously stood at 2.193 trillion yen as of 2005.

The total cost of the project, including operating the plant for 40 years and then decommissioning it, was initially estimated at 12.6 trillion yen.

However, it is expected to rise to 13.9 trillion due to the increase in maintenance and personnel costs. The major electric power companies that jointly set up JNFL have to cover those costs, but ultimately consumers will shoulder the burden in the form of electricity rates.

JNFL is constructing the plant in the village of Rokkasho, with the Nuclear Reprocessing Organization of Japan (NURO) contracted to handle the fuel reprocessing.

JNFL and NURO say the additional 750 billion yen to cover the new safety measures includes budgeting for a building to serve as a command center in the event of a severe accident, and installation of tanks to store cooling water.

The plant was initially scheduled to be completed in 1997 with construction costs of 760 billion yen, but equipment-related troubles struck the project in succession, and the completion date has been postponed 22 times to date.

The Nuclear Regulation Authority (NRA), the country's nuclear watchdog, is now conducting final-stage screening of the reprocessing plant ahead of the start of full-scale operations.

JNFL said previously that it is aiming to complete the plant by the end of September 2018 on the assumption that the NRA's screening finishes by the end of March 2017.

However, a false report was found in relation to a safety rule violation that came to light in 2015, leading to the delay of the NRA's screening.

Even if the NRA approves the new safety measures in the screening, the approval is expected to be made this autumn at the earliest, meaning the latest completion target of September 2018 is likely to be missed.

TEPCO executives' trial

July 4, 2017

Trial of former Tepco executives over 2011 disaster

http://www.japantimes.co.jp/opinion/2017/07/04/editorials/trial-former-tepco-executives-2011-disaster/#.WV0_JlFpyos

The criminal trial of three former top executives at Tokyo Electric Power Co. over the triple meltdown at its Fukushima No. 1 nuclear power plant in 2011 has begun at the Tokyo District Court. The point at issue is whether it was possible for the accused to have foreseen the giant tsunami that led to the nuclear disaster and whether they could have taken steps to prevent the catastrophe. Proving the case against them will not be easy. Still, the court and the lawyers acting as prosecutors should leave no stone unturned in their effort to unravel Tepco's decision-making process regarding the nuclear power plant's safety measures. This is critical as a great deal remains shrouded in mystery as to what the power company and its executives did or failed to do to prepare the plant for the kind of disaster that struck it six years ago.

The trial was set after an Inquest of Prosecutions, composed of ordinary citizens, twice overturned the prosecution's decisions not to pursue charges against the former Tepco executives — former chairman Tsunehisa Katsumata, 77, and two ex-vice presidents, Sakae Muto, 67, and Ichiro Takekuro, 71.

Three lawyers, who acted as prosecutors to indict the men in February, charge that the former executives were well aware of the possibility that a tsunami higher than the Tepco plant site, which is 10 meters above sea level, could hit the facility and flood the reactor turbine buildings, resulting in a loss of power that would cause the plant's cooling system to fail. Yet they neglected to take any precautionary measures to prevent such an outcome. Such negligence on the part of the Tepco executives, the lawyers charge, led to the hydrogen explosions at the plant's Nos. 1 and 3 reactors on March 12 and 14, 2011, injuring 13 people at the scene and forcing patients at a nearby hospital to endure long hours of evacuation, which resulted in 44 deaths.

In the opening session of the trial on Friday, the former top executives all pleaded not guilty, saying it was impossible for them to foresee the tsunami and the nuclear disaster.

In a civil suit in which some 140 Fukushima residents who evacuated to Gunma Prefecture due to the nuclear disaster demanded ¥1.5 billion in damages, the Maebashi District Court has ordered the government and Tepco to pay ¥39 million in compensation, ruling that they could have foreseen the tsunami hitting the plant. But to establish criminal responsibility on the part of the individual executives, it must be proven that they could have foreseen the occurrence of a calamity in concrete terms — instead of just being vaguely aware of the danger.

One point at issue in the trial is an estimate made by a Tepco subsidiary in 2008 — based on the government's assessment of long-term quake risks — that if an earthquake of magnitude 8.2 — similar in intensity to the 1896 quake off the Sanriku coast of Tohoku — occurred off Fukushima Prefecture, a tsunami with a maximum height of 15.7 meters could strike the plant site. During the civil suit proceedings that in 2008, Muto said that he had been informed of the estimate, along with an explanation from the subsidiary that a seawall 10 meters high needed to be built to protect the plant site, and that he gave an instruction to look into how to get government approval for building such a seawall. When interrogated by prosecutors, Takekuro said he had been informed of the estimate in April or May 2009. However, Katsumata has denied that he had been informed of the estimate — although the Inquest of Prosecution suspects that he must have received the information by June that year.

Although Tepco discussed measures to protect key facilities at the plant against flooding by a tsunami, the company eventually took no concrete action. Not enough has been made known as to what specific information the executives received and what judgments they made after they received the tsunami estimate.

Although the government, the Diet and Tepco each conducted probes into the Fukushima nuclear disaster, they have been unable to clarify why the power company failed to take prompt measures in response to data showing the potential risk of a tsunami occurring that could damage the plant. This trial may be the last chance to scrutinize Tepco's decision-making process over the safety of the Fukushima No. 1 plant. The court and the prosecution should do their utmost to clarify not only the responsibility of the Tepco executives for the Fukushima plant disaster but also that of the government as the supervisory authority.

JAEA may have violated safety rules

July 5, 2017

JAEA may have violated safety rules

https://www3.nhk.or.jp/nhkworld/en/news/20170705_39/

Japan's nuclear regulator says the operator of a nuclear energy research facility north of Tokyo may have violated safety regulations. Workers at the facility were accidentally exposed to radioactive materials last month.

The Nuclear Regulation Authority has conducted an on-site investigation into the Oarai Research and Development Center in Ibaraki Prefecture, which is operated by the Japan Atomic Energy Agency.

A bag containing plutonium and other radioactive materials was ripped open in early June while workers at the facility were checking fuel storage containers.

NRA officials met on Wednesday to share their findings.

They noted that JAEA officials did not consider the possibility that a bag containing nuclear fuel materials may burst open.

They also said that the operator did not draw up the required work plan documents despite the fact that they had not checked the inside of the nuclear fuel containers for a long period.

NRA Chairman Shunichi Tanaka criticized JAEA for its lack of knowledge and preparedness on safety. He said decisions should not be made on baseless confidence when handling plutonium.

The NRA expects to receive a final report on the incident from JAEA toward the end of August.

North Korea & nukes (1)



July 7, 2017

Negotiations won't stop Pyongyang from getting nukes

<http://www.japantimes.co.jp/opinion/2017/07/07/commentary/world-commentary/negotiations-wont-stop-pyongyang-getting-nukes/#.WV-By1Fpyos>

by Eli Lake

Bloomberg

WASHINGTON – When North Korea tested an intercontinental ballistic missile this week — what its boy tyrant called a “gift to the American bastards” — the response from the Trump administration was fairly conventional.

Secretary of State Rex Tillerson correctly called it an escalation. He brought the matter before the United Nations Security Council. And he assured, “We will never accept a nuclear-armed North Korea.”

If that sounds familiar, it’s because not tolerating a nuclear North Korea has been a pillar of U.S. policy since the peninsula’s first nuclear crisis in the early 1990s. Keeping nuclear weapons out of the hands of this regime is an admirable goal; a government is hardly a model of restraint if its prisons are so vast they can be seen from space. And a few years ago, it might have even been an achievable goal. But in 2017, it is at best quaint and at worst delusional.

The sad truth is that North Korea is dangerously close to going nuclear, and almost every expert who has studied the problem understands there is nothing the U.S. can do about it.

The North Koreans are much closer to going nuclear than they were when the U.S. negotiated a flawed interim deal in 1994, known as the Joint Framework Agreement, to halt their progress.

Pyongyang has already detonated nuclear devices on five occasions. The North also has continued to make progress on ballistic missiles. The latest test went farther and higher than previous ones had. It’s only a matter of time until the regime of Kim Jong Un will perfect this technology, along with the relatively easier task of shrinking a nuclear device to fit on a warhead.

North Korea will arm itself with nuclear weapons, because the regime knows that its survival depends on it. In the first round of nuclear negotiations, there was a credible threat of force against North Korea. The deal offered for the last quarter century was essentially: We let you survive if you give up your nukes.

Today, that offer is no longer credible. North Koreans delivered this message as recently as last month to a group of Western experts who met with them in Sweden in what is known as Track 2 diplomacy. Sue Mi Terry, a former CIA analyst and expert on North Korea, explained it to her counterparts at an event last month at the Asia Society.

“The North Koreans emphasize over and over, denuclearization is completely off the table,” she said. “We are smoking something if we think this is something that is achievable. They say it’s not negotiable, it’s over, it’s done, this is not something we can talk about.”

Terry went on to say her North Korean counterparts said, “We are so close to completing the nuclear program, we are so close to perfecting this nuclear arsenal, we did not come this far to give it up.” She added that they gave the examples of Libya and Iraq as regimes that abandoned nukes only to face regime change later.

It’s not just Terry who at this point is persuaded the goal of a denuclearized North Korea is not attainable. Bill Clinton’s secretary of defense, William Perry, told a group of journalists last month in Washington that the best the U.S. could hope for now would be a freeze on North Korea’s program, similar to the one the Obama administration negotiated with Iran. But again, this would not roll back the considerable progress the regime has made. What’s more, he said he would not recommend today a pre-emptive strike against the regime’s arsenal. This is in part because North Korea has thousands of mortars capable of hitting Seoul, but also because a military strike wouldn’t be able to take out the country’s entire nuclear infrastructure.

Perry is less gloomy than other experts. Michael Auslin, the Williams-Griffis fellow in contemporary Asia at the Hoover Institution, was blunt. He told me: “Negotiations won’t work.”

Auslin explained that over a quarter century, Pyongyang has used the negotiations to buy time and extract concessions from the West. Among the concessions the North Koreans have gained from the negotiations are being removed from the U.S. list of regimes that sponsor terrorism, shipments of food and fuel, the promise of light water plutonium reactors and the removal of crippling economic sanctions.

Despite all of these carrots, the regime has cheated on the commitments it has already made. The George W. Bush administration discovered this in its first term when it learned of North Korean work on a uranium enrichment facility. In 2002, an envoy for the regime acknowledged it in talks, and the Bush administration pulled out of the 1994 joint framework negotiated by Clinton.

The truth is there are no good policy options today for North Korea. It’s doubtful that regime change is even possible. The U.S. government is culturally ill-equipped to foment insurrection inside such a notoriously closed society. And an invasion of North Korea would be about as popular in America today as cancer.

It’s possible that sabotage and other forms of cyberattacks could delay the North’s nuclear capability.

What about working with China? President Donald Trump acknowledged Wednesday morning in a tweet that his desire for China to apply more pressure on North Korea has not worked.

“There is no good existential answer to North Korea,” Auslin told me. “It’s not just about negotiations. It’s about the entire set of political, economic, social, security threats we face.” He said at this point the regime had accomplished a stalemate, and was close to achieving a checkmate against the West.

That’s not the kind of thing Americans like to hear. We dream big. But in foreign policy, it’s important to be realistic. The Trump administration has an opportunity to level with the public in a way prior administrations did not. If you want to stop North Korea from getting a nuke, that requires war. If you’re not prepared to go that far, stop pretending the U.S. can achieve its goals with more talking. It won’t work.

Eli Lake was the senior national security correspondent for the Daily Beast and covered national security and intelligence for the Washington Times and New York Sun.

North Korea & nukes (2)



Living with a nuclear North Korea

<http://www.japantimes.co.jp/opinion/2017/07/07/commentary/world-commentary/living-nuclear-north-korea/#.WV-CNFFpyos>

by Gwynne Dyer

LONDON – “American bastards would be not very happy with this gift sent on the July 4 anniversary,” said North Korean leader Kim Jong Un about his country’s first successful test of an intercontinental ballistic missile on Wednesday. And indeed Americans are not happy about it, although it would be overstating the case to say that panic is sweeping the United States at the news that North Korea’s ICBMs can now reach America.

One reason for the lack of public panic is that Alaska is not a central concern for most Americans, and Alaska is the only part of the U.S. that North Korea’s Hwasong-14 missile can actually reach.

Another reason is that the U.S. authorities insist that North Korea’s nuclear weapons are too big and heavy to fit on its ICBMs. (It’s not clear whether they have actual intelligence that confirms this, or are just whistling in the dark.)

And a third reason might be that Americans are secretly embarrassed by the sheer hypocrisy of their own government’s position in this affair.

Well, no, not really. The vast majority of Americans are blissfully unaware that there is any hypocrisy involved in demanding that North Korea refrain from getting what the U.S. has had for the past 72 years. So is the U.S. government.

U.S. Secretary of State Rex Tillerson was being entirely sincere when he said that North Korea’s ICBM test “represents a new escalation of the threat to the United States, our allies and partners, the region and the world.” Wrong, but entirely sincere.

He is obviously aware that the U.S. has had nuclear weapons since 1945, and has even dropped them on Japan. He knows that his country has had ICBMs since the 1950s, and still has hundreds ready to launch on short notice. How is the American posture different from the one that North Korea aspires to?

Two differences, really. One is that the U.S. has at least a hundred times as many nuclear weapons as North Korea, and delivery vehicles at least two technological generations further down the road. Another is that the U.S. has a clearly stated policy that says it might use nuclear weapons first in a conflict. Weirdly, this just makes American ICBMs sound more dangerous than North Korea’s.

That’s not really true. The U.S. used its first nuclear weapons as soon as it got them in 1945, but despite all the wars it has waged in the 72 years since then it has never used them again. Nuclear weapons are so terrifying that they actually force the people who possess them to think seriously about the consequences of using them.

Pyongyang has obviously been thinking hard about the grave implications of nuclear weapons too, because it never actually threatens to use North Korea’s nukes in a first strike. It’s always about deterring a nuclear attack on North Korea. And though the North Korean regime lies and blusters a lot, you can believe it about this.

North Korea will probably have ICBMs that can reach big American cities in three to five years if it keeps up the current pace of development and testing. That would buy North Korea a limited degree of safety from an American nuclear attack, because one or more of its missiles might survive a U.S. first strike and be able to carry out a “revenge from the grave.” That is how nuclear deterrence works, at least in theory. But even full-range nuclear-tipped ICBMs would not give the North Korean regime the ability to launch a nuclear attack on America (or Japan, or South Korea) without being exterminated in an immediate, massive nuclear counterstrike. So you can probably trust the North Korean regime not to do anything so terminally stupid — unless people like Kim are literally crazy.

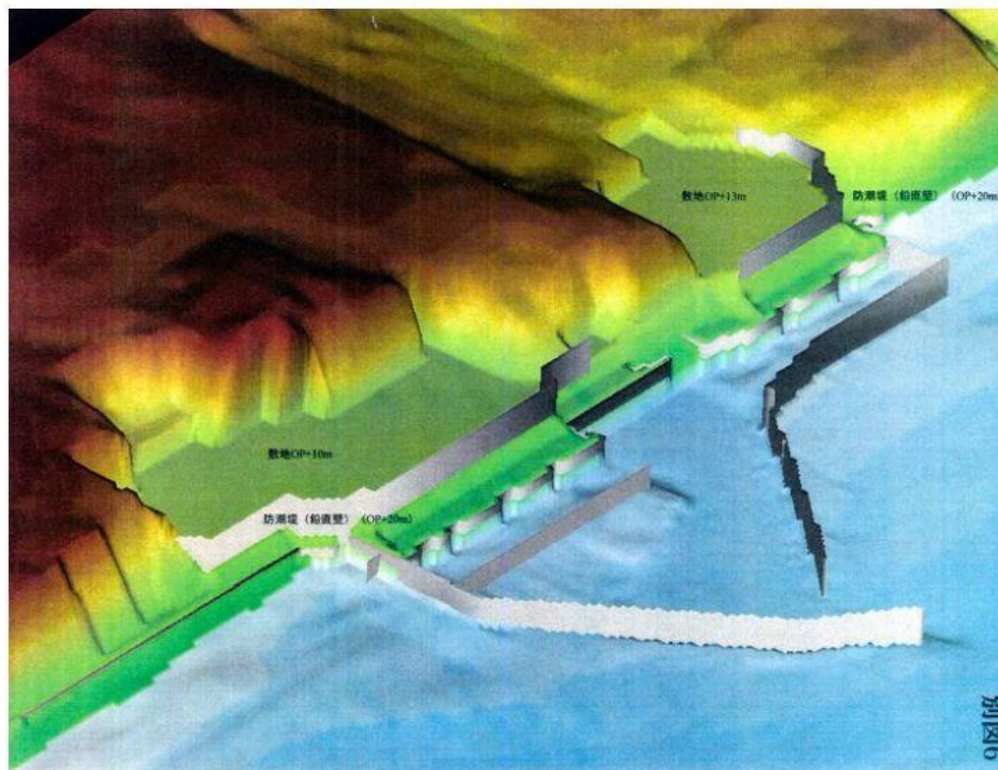
That's why American diplomats work so hard to convince everybody else that the North Koreans really are frothing mad, impervious to logic and not even interested in self-preservation. Only then can they argue that the North Koreans should be denied nuclear weapons even though Americans, Russians, Chinese, British, French, Israelis, Indians and Pakistanis can be trusted with them.

There is no evidence the North Koreans really are crazy. In the 64 years since the end of the Korean War they have never risked a war, and they are extremely unlikely to do so now. And while there is a rather erratic leader in Washington, there are probably enough grown-ups around him to avoid any fatal mistakes on the American side either.

So North Korea will probably get its nuclear deterrent in the end, and we will all learn to live with it — like we learned to live with mutual U.S.-Russian nuclear deterrence, mutual U.S.-Chinese nuclear deterrence and mutual Indian-Pakistani nuclear deterrence.

Gwynne Dyer is an independent journalist and military historian.

Why didn't they act?



an artist's concept of seawalls to protect the Fukushima No. 1 nuclear power plant from tsunami

July 1, 2017

EDITORIAL: Fukushima trial should clarify why TEPCO execs didn't act

<http://www.asahi.com/ajw/articles/AJ201707010022.html>

The first criminal trial over the 2011 Fukushima nuclear disaster is now under way, drawing fresh attention to key questions concerning the devastating accident and its lasting reverberations.

The focus of public attention will be on whether the reams of evidence collected by public prosecutors, along with statements by those in charge, will provide a clearer picture of how the disaster unfolded.

Three former executives of Tokyo Electric Power Co., which operated the crippled Fukushima No. 1 nuclear power plant, pleaded innocent June 30 in the first hearing held at the Tokyo District Court.

They are charged with professional negligence resulting in the deaths of 44 people who had to be evacuated from a hospital near the plant, and injuries of others.

While the Tokyo District Public Prosecutors Office twice decided not to press charges against the three, citing a lack of evidence, independent judicial panels of citizens voted for mandatory indictments against them.

The core question for the trial judge is whether it was possible for them to predict the towering tsunami that inundated the plant, triggering a triple meltdown, and take effective safety measures to prevent the catastrophe.

In his opening statement, the lawyer acting as a prosecutor asserted that the three former TEPCO executives had the “ultimate obligation and responsibility” to ensure the safety of the nuclear facility. He cited a 2008 estimate by a TEPCO subsidiary involved in the operation of the Fukushima plant that pointed to the “shocking” possibility of the plant being struck by tsunami of up to 15.7 meters. The TEPCO officials proposed that measures be taken to protect the plant from such a tsunami, including the construction of a seawall, but the three executives decided to postpone taking such steps.

The defense team countered by reiterating its argument that it was merely one of many estimates and constitutes no reason to claim that the defendants were able to predict and avoid the accident.

In 2002, a government agency warned that a massive earthquake capable of generating huge tsunami could occur anywhere off the Pacific coast from the northern Sanriku region in Tohoku down to the Boso region in Chiba Prefecture.

The huge 2004 Indian Ocean earthquake and tsunami caused damage to nuclear power facilities in India. Japanese nuclear regulators at that time called for steps to enhance the safety of nuclear power plants.

Six years since the harrowing accident, there are still many questions that remain unanswered with regard to TEPCO’s responses to these warnings and developments. How seriously did the utility consider additional safety measures? What steps did the company actually take and fail to take? What are the reasons for its decisions?

There is no denying that most of the TEPCO people involved have done little to help clear up the facts. Their behavior has been marked by insincerity.

The three defendants were summoned by the Diet’s committee that looked into the accident as unsworn witnesses and answered various questions in public.

After that, however, they showed no willingness to offer their own accounts of what happened.

Like many other TEPCO executives, the three defendants have, to this day, refused to agree to their statements made in interviews by the government’s investigative committee to be made public.

Criminal trials are held to determine whether the defendants should be held criminally liable.

The rights of the defendants provided by the Constitution and the Criminal Procedure Law should, naturally, be respected. That means there is a limit to what a criminal court can do to clear up the truth. While recognizing the limitations of what a criminal trial can achieve, we sincerely hope it will shed new light on the accident.

This hope is obviously shared by not just the survivors who have lost their families and hometowns in the accident but also countless others who were affected by the disaster.

The defendants have a duty to help disclose the truth.

In addition to determining whether or not the defendants are guilty of professional negligence, the trial offers an opportunity to reflect deeply on some key questions concerning nuclear power and the related roles of electric utilities and the government; for example, can the safety of nuclear plants be ensured and is there really a viable future for nuclear power generation in this earthquake-prone nation.

TEPCO outlines reform plan

July 4, 2017

New TEPCO leadership conveys reform plan to govt.

https://www3.nhk.or.jp/nhkworld/en/news/20170704_31/

The new managers of Tokyo Electric Power Company have outlined their plan for reforms to squeeze out money to cover costs linked to the 2011 accident at Fukushima Daiichi nuclear plant.

TEPCO Chairman Takashi Kawamura and President Tomoaki Kobayakawa took up their posts last month.

On Tuesday, they made a courtesy call on Economy, Trade and Industry Minister Hiroshige Seko.

Seko urged the new leadership to carry out huge reforms, because the utility cannot fulfill its responsibility for Fukushima with conventional management.

Kawamura vowed to set challenging goals, and to overhaul the corporate culture.

Kobayakawa said TEPCO will make mutually beneficial proposals to various companies to promote business reorganization and integration.

Kawamura sat on the government panel that proposed TEPCO fund costs related to the Fukushima accident through management reform.

Kawamura told reporters after the meeting that he asked the government for continued guidance.

US puts pressure on Japan to skip forum on nuke ban

July 7, 2017

US pressures allies not to attend nuke ban treaty forum

https://mainichi.jp/english/articles/20170707/p2g/00m/0in/051000c#cxrecs_s

NEW YORK (Kyodo) -- The United States has urged its allies to skip a forum to discuss the implications of a landmark nuclear weapons ban treaty that is expected to be adopted Friday, according to an email seen by Kyodo News.

Responding to an invitation from Kazakhstan to a launch event at its mission for the first session of the Nuclear Discussion Forum, the message from the U.S. mission said, "The United States will not participate in any event on the ban treaty, including this one."

"We call on our friends and allies to also not participate in this event. Our position on the ban treaty is clear and will not change," it said.

Participants in the forum are expected to talk about the outcome of U.N. negotiations on the treaty that end Friday, as well as the way forward.

In addition to the United States, the other nuclear weapon states -- Britain, China, France, and Russia -- have skipped the negotiations, claiming the treaty undermines the Nuclear Non-Proliferation Treaty which they have all signed.

Kazakhstan is known for its antinuclear stance, having given up more than 1,400 Soviet strategic nuclear warheads in the 1990s, and has called for the complete elimination of such weapons.

The event is being organized along with the United Nations Office for Disarmament Affairs, which is headed by Japan's Izumi Nakamitsu.

Her deputy, Thomas Markram, is scheduled to make opening remarks, before presentations by ambassadors from South Africa, Brazil and Ireland. Negotiators from the three countries have been actively engaged in the U.N. proceedings that led to the final text and have been proponents of the process from the beginning.

The mission's new Ambassador Kairat Umarov will preside over the event which is open to all U.N. member states, irrespective of their views.

In March, when the first round of nuclear weapons ban talks got under way, U.S. Ambassador Nikki Haley staged a protest outside the U.N. General Assembly hall, along with other nuclear weapon states and North Atlantic Treaty Organization allies.

At the start of the second session that began on June 15, there was no such event. It remains to be seen how the nuclear weapon states will respond to the likely adoption of the ban treaty on Friday.

What now?

July 8, 2017

A Treaty Is Reached to Ban Nuclear Arms. Now Comes the Hard Part.

By Rick Gladston *New York Times*, July 7, 2017 <http://tinyurl.com/ycte8q9t>

For the first time in the seven-decade effort to avert a nuclear war, a global treaty has been negotiated that proponents say would, if successful, lead to the destruction of all nuclear weapons and forever prohibit their use.

Negotiators representing two-thirds of the 192-member United Nations finalized the 10-page treaty this week after months of talks.

The document, called the Treaty on the Prohibition of Nuclear Weapons, was formally adopted on Friday at United Nations headquarters in New York during the final session of the negotiation conference. It will be open for signature by any member state starting on Sept. 20 during the annual General Assembly and would enter into legal force 90 days after being ratified by 50 countries.

“The world has been waiting for this legal norm for 70 years,” said Elayne G. Whyte Gómez, Costa Rica’s ambassador to the United Nations in Geneva and chairwoman of the conference, which was broadcast live on the United Nations website.

Cheers and applause erupted among the delegates after the vote was tallied: 122 in favor and one against — the Netherlands, the only NATO member that participated in the conference. Singapore abstained. The participants did not include any of the world’s nine nuclear-armed countries, which conspicuously boycotted the negotiations.

Some critics of the treaty, including the United States and its close Western allies, publicly rejected the entire effort, calling it misguided and reckless, particularly when North Korea is threatening a nuclear-tipped missile strike on American soil.

“We have to be realistic,” Nikki R. Haley, the American ambassador to the United Nations, said when the talks began in March. “Is there anyone who thinks that North Korea would ban nuclear weapons?”

In a joint statement released after the treaty was adopted, the United States, Britain and France said, “We do not intend to sign, ratify or ever become party to it.”

The statement said that “a purported ban on nuclear weapons that does not address the security concerns that continue to make nuclear deterrence necessary cannot result in the elimination of a single nuclear weapon and will not enhance any country’s security, nor international peace and security.”

Disarmament groups and other proponents of the treaty said they had never expected that any nuclear-armed country would sign it — at least not at first. Rather, supporters hope, the treaty’s widespread acceptance elsewhere will eventually increase the public pressure and stigma of harboring and threatening to use such weapons of unspeakable destruction, and make holdouts reconsider their positions.

“This treaty is a strong categorical prohibition of nuclear weapons and is really rooted in humanitarian law,” said Beatrice Fihn, executive director of the International Campaign to Abolish Nuclear Weapons, a Geneva-based coalition of groups that advocated the treaty.

“It provides a path for nuclear-armed states to join,” Ms. Fihn said in an interview on Thursday. “We don’t expect them to sign the treaty right now, but it’s a good starting point for changing perceptions.”

She and other supporters of the treaty contend that the coercive power of such an agreement can exert enormous influence on public and government opinion.

Treaties that banned biological and chemical arms, land mines and cluster bombs have shown how weapons once regarded as acceptable are now widely, if not universally, reviled. That is the kind of outcome sought by proponents of the nuclear ban pact.

“While the treaty itself will not immediately eliminate any nuclear weapons, the treaty can, over time, further delegitimize nuclear weapons and strengthen the legal and political norm against their use,” said Daryl G. Kimball, executive director of the Arms Control Association, a Washington-based group that supports the treaty.

Nuclear weapons have defied attempts to contain their spread since the United States dropped two atomic bombs on Japan in 1945, ending World War II.

The destruction wrought by those weapons helped give rise to the nuclear arms race and the doctrine of deterrence, which holds that the only way to prevent an attack is to assure the destruction of the attacker. Proponents of deterrence argue that it has helped avert a calamitous global war for more than 70 years.

Besides the United States and Russia, which are believed to have the largest nuclear arsenals, Britain, China, France, India, Pakistan, Israel and North Korea all have nuclear bombs.

Ms. Fihn said the standoff between North Korea and the United States over the North's nuclear weapons and ballistic missiles illustrated what she called the fallacy that the deterrence theory could keep the peace.

"The theory only works if you are ready to use nuclear weapons, otherwise the other side will call your bluff," she said. Deterrence, she added, is also "based on a perception that leaders are rational and sane." Besides the United States and Russia, which are believed to have the largest nuclear arsenals, Britain, China, France, India, Pakistan, Israel and North Korea all have nuclear bombs.

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"The theory only works if you are ready to use nuclear weapons, otherwise the other side will call your bluff," she said. Deterrence, she added, is also "based on a perception that leaders are rational and sane." Under the 1968 Nuclear Nonproliferation Treaty, signed by nearly all nations, parties are required to "pursue negotiations in good faith" aimed at advancing nuclear disarmament.

The new agreement is partly rooted in the disappointment among non-nuclear-armed nations that the Nonproliferation Treaty's disarmament aspirations have not worked.

Mr. Kimball called the new treaty "an expression of the deep concern about the enormous risks posed by nuclear weapons and the growing frustration with the failure of the nuclear-armed states to fulfill their nuclear disarmament commitments."

The new accord would outlaw nuclear weapons use, threat of use, testing, development, production, possession, transfer and stationing in a different country. For nuclear-armed nations that choose to join, the treaty outlines a process for destroying stockpiles and enforcing the countries' promise to remain free of nuclear weapons.

The basic premise, the treaty's opening passage states, is a recognition of "the catastrophic humanitarian consequences that would result from any use of nuclear weapons," and an agreement that their complete elimination "remains the only way to guarantee that nuclear weapons are never used again under any circumstances."

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Questions and Answers about the Treaty to Ban Nuclear Weapons:<http://www.icanw.org/campaign-news/about-the-treaty-to-prohibit-nuclear-weapons/>

EU-Japan EPA: Lift Fukushima food restrictions?

July 7, 2017

EU hopeful of EPA, may ease Fukushima restrictions

https://www3.nhk.or.jp/nhkworld/en/news/20170707_05/

The European Union has expressed hope for an Economic Partnership Agreement with Japan. The bloc may also ease restrictions on food imports from the country's northeastern prefecture of Fukushima.

In a meeting in Brussels on Thursday, European Council President Donald Tusk and Japanese Prime Minister Shinzo Abe confirmed a broad deal on the bilateral EPA.

The European Commission later released a statement, saying the EPA will be the most important bilateral trade agreement ever concluded by the EU.

The statement says the EPA could increase the value of exports from the EU by as much as 20 billion euros, or about 22.8 billion dollars, meaning more possibilities and jobs in many EU sectors.

The statement says tariffs on wine imports from the EU will disappear from day one of entry into force and that wine producers will be able to save 134 million euros, or roughly 152 million dollars, a year.

The statement says the EPA will remove the vast majority of duties paid by EU companies, which sum up to one billion euros, or around 1.14 billion dollars, annually.

At a news conference on Thursday, European Commission President Jean-Claude Juncker referred to the EU's restrictions on rice and other food imports from Fukushima.

Juncker said he is confident and will work for the EU to further lift the import measures after the summer break.

The restrictions followed the 2011 nuclear accident at the Fukushima Daiichi power plant in the prefecture. They require Japan to show that food products from Fukushima have cleared safety checks.

NRA criticises TEPCO's safety management

July 10, 2017

Nuclear watchdog raps TEPCO safety management

https://www3.nhk.or.jp/nhkworld/en/news/20170710_21/

Japan's nuclear regulator has criticized the operator of the damaged Fukushima Daiichi power plant, saying the utility is not demonstrating initiative in dealing with issues of safety management.

Officials at the Nuclear Regulation Authority on Monday conducted a hearing with the new leadership of Tokyo Electric Power Company, or TEPCO.

TEPCO Chairman Takashi Kawamura and President Tomoaki Kobayakawa attended the hearing. They took up their posts last month.

The rare hearing is aimed at confirming TEPCO's progress on safety management, as the firm is seeking to

restart 2 nuclear reactors at its Kashiwazaki-Kariwa plant in Niigata Prefecture.

Kawamura and Kobayakawa said the company's top priority is taking on full responsibility for the nuclear accident at the Fukushima Daiichi plant.

But regulation officials said they are concerned that **TEPCO is failing to show initiative on issues such as treatment of the increasing volume of contaminated water and removal of melted fuel at the plant.**

They pointed out that TEPCO still relies on the government to make decisions in these areas.

On the disposal of contaminated water, the TEPCO executives said they hope to resolve the situation before the plant's storage tanks for the water reach capacity in 2 years.

But they couldn't present any specific plan to deal with the problem.

The chairman of the regulator, Shunichi Tanaka, said he does not think the company's measures are sufficient.

He asked the TEPCO leadership to submit detailed plans on how the utility plans to decommission reactors at the plant.

KEPCO: What future for exports?

July 13, 2017

South Korea's Anti-Nuclear Push Casts Cloud Over KEPCO's Reactor Exports

<https://www.nytimes.com/reuters/2017/07/12/business/12reuters-southkorea-nuclear-exports.html>
By REUTERS

SEOUL — A decision by South Korea's new president to scrap plans for more domestic nuclear power plants will make it harder for the country to sell reactors to buyers overseas, experts warn.

State-run Korea Electric Power Corp (KEPCO) is building the first of four nuclear plants in the United Arab Emirates in an \$18.6 billion deal, and is scouting for more business in Britain and other countries.

But many nuclear experts doubt South Korea's ability to export a technology it is ditching at home after President Moon Jae-in, who took office in May, said he would scrap plans to build new domestic reactors. South Korea is the world's fifth-biggest user of nuclear energy and KEPCO, which has built more than 20 reactors at home, vies with the likes of France's EDF and Toshiba's Westinghouse unit in the niche but fiercely competitive nuclear export market.

"Exporting nuclear is an international competition, and Korea will look like a child fighting alone to win a game while others have support from a whole family," said Chung Bum-jin, a nuclear engineering professor at South Korea's Kyung Hee University.

The complexity of nuclear installations meant companies could not rely on past experience for building reactors, said Roh Dongseok, a senior nuclear power policy research fellow at the Korea Energy Economics Institute

"You also need a proven record to revise and upgrade nuclear design. Even if there's a slight change in nuclear design, it is considered as new technology and skills," he said.

Suppliers in Korea, who often produced only small quantities of components, could also face difficulties without the support of a domestic industry, added Chung.

KEPCO's international nuclear project team is working to keep its export business alive.

"We are focussing on the UK market, but also on Saudi Arabia, South Africa and Iran," said Jong-hyuck Park, chief nuclear officer at KEPCO at a recent industry event in London.

KEPCO is also in talks with Japan's Toshiba to buy a stake in Britain's NuGen nuclear project, aiming to use its own reactor design.

"The company (KEPCO) aims to finish the due diligence process by August or September.... and it will take more time to look into South Africa," said a source with direct knowledge of the matter who declined to be identified as he was not authorised to speak to media.

NuGen, planned for Moorside in northwest England, was thrown into doubt after Westinghouse declared bankruptcy and its partner in the project, France's Engie, pulled out.

A KEPCO spokesman said the company is awaiting government guidelines on nuclear exports.

The government's nominee as energy minister has yet to take up the post and it is not yet clear when the government will specify plans for the industry.

"If the South Korean government and industry show a commitment to its exports, it can have a viable and successful nuclear export programme to build on its UAE success," said George Borovas, global head of nuclear at law firm Shearman & Sterling.

(Reporting By Jane Chung; Additional reporting by Susanna Twidale in LONDON and Aaron Sheldrick and Osamu Tsukimori in TOKYO; Editing by Henning Gloystein and Richard Pullin)

In favour of a North-East Asia Nuclear Weapon-Free Zone

July 15, 2017

Japan should abandon nuclear umbrella

<http://www.japantimes.co.jp/opinion/2017/07/15/commentary/japan-commentary/japan-abandon-nuclear-umbrella/#.WWo101Fpyos>

by Mitsuaki Takami

Special To The Japan Times

NAGASAKI – When the atomic bomb exploded over Nagasaki on Aug. 9, 1945, my mother was pregnant with me. She lived one or two mountains away from Urakami, the hypocenter area. Three days after the bombing, she went to her parents' home in Urakami and was exposed to radiation. I lost my grandmother, two of my aunts, my aunt's husband and, 13 years later, one of my cousins. The body of one of my aunts was not even found. I still remember clearly how my cousin was skin and bones when he died. I became a priest and trained future priests at the Major Seminary of Fukuoka for 30 years. As a person of faith in an atomic-bombed country with a pacifist Constitution, I have a strong desire to abolish nuclear weapons.

Japan is now faced with two serious realities concerning nuclear weapons. One is that Japan regrettably did not join the U.N. negotiations for the Treaty on the Prohibition of Nuclear Weapons, and will not be able to join the treaty so long as it is under the nuclear umbrella of the United States. The other is that North Korea is charging ahead in pursuit of becoming a nuclear power and the military tension in Northeast Asia is running extremely high.

This situation entails Japan renewing its fundamental thinking on what nuclear weapons are all about. We hear accusations that North Korea's activities violate U.N. Security Council resolutions. However, they tend to be superficial because such resolutions do not question all nuclear weapons, including those possessed by Security Council members, and because North Korea justifies its nuclear armament as necessary to defend against nuclear threats from other states. North Korea likewise has survivors of the Nagasaki and Hiroshima bombs.

Hibakusha have not only spoken about their suffering but have also called for "No More Hibakusha," believing that nobody should ever experience the same suffering. I want the Japanese government to consider why nuclear proliferation is progressing in Northeast Asia despite the memories of the atomic bombings and how this is connected with Japan's dependence on nuclear deterrence. North Korea also needs to understand what kind of weapons nuclear weapons are.

While the government admits nuclear weapons are inhumane, it continues to rely on the nuclear umbrella, which justifies using nuclear weapons for the purpose of retaliation. Any exchange of nuclear weapons would undoubtedly cause catastrophic consequences in North Korea and Japan, even more horrible than what Nagasaki and Hiroshima experienced.

Despite this contradiction, the government continues this policy. We understand that Japan is in a serious security environment. But the government has failed for decades to exert itself and improve the environment so that it can end its reliance on the nuclear umbrella. This inaction must now be strictly scrutinized.

Recently, representatives of 124 people of faith in Japan, including myself, submitted to Foreign Minister Fumio Kishida a statement entitled "People of Faith in Japan Call for Japan to Stop Relying on the U.S. Nuclear Umbrella and to Move toward the Establishment of a Northeast Asia Nuclear Weapon-Free Zone." The establishment of such a zone (NEA-NWFZ) would offer a breakthrough to the current difficult circumstances. As the statement says, "the policy to establish a NEA-NWFZ enables Japan to leave the 'nuclear umbrella' while ensuring its national security." Many scholars and researchers have already been making the same argument. In Nagasaki where I live, the Research Center for Nuclear Weapons Abolition, Nagasaki University (RECNA), proposed a NWFZ with a three-plus-three arrangement, in which three countries — North Korea, South Korea and Japan — form a geographic NWFZ, while the other three countries — the U.S., Russia and China — respect the zone and provide legally binding negative security assurances to the former three. Japan would no longer need the nuclear umbrella to defend itself against nuclear threats from China or North Korea, while North Korea, released from nuclear threats from the U.S., would no longer have to stick to its nuclear program. In an encouraging move, Ramesh Thakur of Australian National University gave a similar discussion in his June 28 opinion piece in *The Japan Times*. RECNA thinks this arrangement is still feasible today, at a time when North Korea has already conducted five nuclear tests.

Even if Japan actually proposed the establishment of a NEA-NWFZ, it would not be realized immediately. The histories of the five existing NWFZs show that it took at least 10 years to conclude such a treaty after one of the concerned states initially proposed it. Still, by proposing a NEA-NWFZ, Japan can demonstrate its will to shift its security policy from nuclear-dependent policies to nuclear-free ones. Such a shift would

enable Japan to join and promote the Treaty on the Prohibition of Nuclear Weapons, just concluded in New York on July 7.

From the viewpoint of a person of faith, this policy shift is a minimum requirement for Japan, the only country that has experienced wartime atomic bombings and has heard ever-lasting hibakusha's voices calling for "No More Hibakusha" after surviving a hellish catastrophe. The following passage in our statement expresses the origin of our religious spirit on nuclear weapon issues: "Any use of nuclear weapons brings about catastrophic humanitarian consequences, and is against our religious values, moral principles. ... Therefore, we believe nuclear weapons abolition is a spiritual imperative."

Mitsuaki Takami is the Catholic archbishop of Nagasaki.

TEPCO tries to secure new source of revenue

July 16, 2017

TEPCO to support next-generation mobile network

https://www3.nhk.or.jp/nhkworld/en/news/20170715_15/

Tokyo Electric Power Company plans to help mobile phone carriers in their effort to put a high-speed, high-capacity communications technology, known as the 5th generation mobile system, or 5G, into practical use.

Carriers are conducting verification tests of 5G, aiming to launch the service by 2020.

However, securing places to set up base stations takes enormous time and effort and is expensive.

People familiar with the matter say TEPCO is planning to lease its steel transmission towers to help the carriers secure base stations.

The utility will also work with a venture company "JTOWER," to launch a website on Tuesday to introduce places where base stations can be set up, such as on towers and roofs of buildings.

JTOWER is developing and installing equipment to prevent radio interference.

Carriers will be able to save on time and expenses. They will not have to search for base station locations or negotiate with property owners.

TEPCO is aiming to utilize its own assets, including towers, to develop a new source of revenue.

Development of systems and terminals for 5G technology is accelerating and will be used in a variety of areas, such as automatic driving and telemedicine.

Ten years after Niigata's close call... the nuclear village is alive and well in Japan

July 15, 2017

A decade after Niigata's nuclear close call

<http://www.japantimes.co.jp/opinion/2017/07/15/commentary/decade-niigatas-nuclear-close-call/#.WWo1h1Fpyos>

by Jeff Kingston

Special To The Japan Times

On July 16, 2007, a 6.8 magnitude earthquake rattled the world's largest nuclear power complex at Kashiwazaki-Kariwa in Niigata Prefecture. This was on a site that the government and Tokyo Electric Power Co. had insisted was seismically safe.

Two years earlier, the Tokyo High Court had ruled against local plaintiffs backed by scientists who insisted the authorities were wrong and that there was an active fault line adjacent to the site. In 2007, Mother Nature overruled the judge, raising questions about relying on old evaluations by institutions favoring nuclear energy in assessing site safety, particularly given subsequent advancements in seismic science.

The good news is that the reactors shut down automatically and the plant withstood tectonic shocks way beyond what anyone had anticipated when designing the structures. The bad news trickled slowly out of Tepco, but an NHK special shortly afterwards aired a startling revelation. The plant manager told NHK that it was very lucky that everything worked as planned and that there was no serious accident — especially considering that the door of the control center had been jammed and nobody could get in. This meant that if there had been a crisis, nobody would have been able to manage it because the emergency controls were inaccessible.

The door was stuck because the land subsided due to the earthquake. It is hard to anticipate every contingency, and that is precisely why accidents happen. If the safety systems had not functioned as planned, Kashiwazaki might have spun out of control, but luckily it was just a close call.

Also worrisome was the transformer fire that took an age to put out because the water pipes had ruptured due to the earthquake. And why was there a nine-hour delay in informing local authorities about the situation, including some radiation leaks? Apparently the plant workers were preoccupied with setting up whiteboards in the parking lot as an improvised control center and using their mobile phones to communicate with each other. Tepco also downplayed how much radioactive water had leaked, a spill that Asahi reporters spotted workers mopping up with paper towels.

At Kashiwazaki-Kariwa there are seven reactors with an 8,200 megawatt capacity, enough for 16 million households. This clustering of reactors means that if there was an accident, it could cascade into a major disaster.

The reactors went online between 1985 and 1997 and generated \$2 billion in subsidies for the hosting towns, on top of tax revenues and many high-paying jobs. But local enthusiasm has dimmed considerably since then. Back in 2001 Tepco was caught falsifying repair and maintenance data at all of its 17 reactors, suggesting that management did not nurture a culture of safety. Then, in 2005, the International Atomic Energy Agency warned that fire prevention measures at the Niigata plant were inadequate.

Niigata voters have since elected nuclear skeptics for mayor and prefectural governor. In a nationwide poll conducted by the Asahi Shimbun last October, 57 percent of the public opposed restarting nuclear reactors while only 29 percent were in favor. Earlier in 2016, a poll conducted by the pro-nuclear Japan

Atomic Energy Relations Organization found that 12 percent of respondents favored maintaining or increasing Japan's nuclear energy output while nearly 63 percent wanted to end nuclear power in Japan, either by phasing it out (48 percent) or immediately pulling the plug (15 percent).

Public opposition to nuclear power is not only driven by safety concerns and the tragic fate of tens of thousands of nuclear refugees displaced from ancestral homes in Tohoku. The Fukushima disaster is also a financial black hole that will burden taxpayers and ratepayers for decades to come. And there are the high costs of decommissioning many aging reactors and the expense involved in building a site to permanently store radioactive waste.

Niigata Gov. Ryuichi Yoneyama has slowed plans to restart any reactors, calling for a comprehensive safety review, development of an evacuation plan and an assessment of the Fukushima disaster's public health impact, all of which could take three years. Tepco's latest rehabilitation plan includes restarting two of the reactors by March 2020, saying the profits would help it pay off the staggering ¥21.5 trillion (\$190 billion) bill for Fukushima, an estimate that is likely to keep rising over the next few decades. The mayor of Kashiwazaki has also weighed in, requesting that Tepco begin decommissioning one reactor before agreeing to restart the two reactors Tepco wants to bring back online. The Nuclear Regulation Authority is currently conducting safety inspections at two of the reactors. The mayor thinks that seven reactors is too much and is worried about the safety of the control center, wondering if it is sufficiently strong to withstand a powerful quake, possibly because Tepco admitted to misleading the NRA in February about just how strong the structure is. He is hopeful that decommissioning will generate jobs and revitalize the local community.

The mayor also expressed concern about the threat of nuclear missiles from North Korea, prompting NRA Chairman Shunichi Tanaka to joke that Tokyo would make a better target. Funny guy.

The Fukushima debacle has already cost in excess of \$100 billion and the government estimates that total will skyrocket in coming years. If only Tepco had heeded internal warnings in 2009 about the possibility of a monster tsunami striking the Fukushima No. 1 plant and built a bigger tsunami wall. That would have cost \$1 billion, a bargain in retrospect. Will the ongoing trial of three Tepco executives find them responsible for this and other instances of negligence? Probably not.

And now there are five nuclear reactors operating in Japan, and soon two more in Kyushu, due to court rulings favorable to the utilities. The fate of an additional 35 operable reactors is uncertain, but the staggering costs of decommissioning many of these — so far the NRA has approved five decommissioning proposals that will cost about \$10 billion — raise questions about the viability of nuclear energy in Japan. Toshiba, which is selling off its key assets to pay for its purchase of Westinghouse Electric, knows just how risky the nuclear business is, and hopefully Tepco now understands that cutting corners to save money was abysmal risk management.

Many Japanese must envy South Korea, where newly elected Prime Minister Moon Jae-in has vowed to phase out nuclear energy and cancel plans to build new plants and extend the operating life of its 25 aging reactors. In contrast, Prime Minister Shinzo Abe has reinstated nuclear power into the national energy strategy, targeting 20 to 22 percent of the overall mix, demonstrating the **resilient influence of Japan's "nuclear village."**

Jeff Kingston is the director of Asian Studies, Temple University Japan.

TEPCO makes fishermen angry

July 20, 2017

TEPCO chairman incurs fishermen's anger

https://www3.nhk.or.jp/nhkworld/en/news/20170720_02/

The chairman of Tokyo Electric Power Company, or TEPCO, has denied a media claim that the firm has decided to release radioactive water at the Fukushima Daiichi nuclear power plant into the ocean.

The utility has been struggling with the huge amount of radioactive water that has been accumulating at the plant after the 2011 nuclear accident. The water contains radioactive tritium.

Some media outlets have reported that TEPCO Chairman Takashi Kawamura said the company has already decided to release the contaminated water into the sea after reducing the concentration of tritium below the government limit.

The head of Japan's fishermen federation, Hiroshi Kishi, met Kawamura on Wednesday and protested his reported remark, saying it was extremely regrettable.

Kishi strongly urged Kawamura not to discharge radioactive water into the sea without the consent of fishermen and the public.

Kawamura said the company has not decided to release tritium-contaminated water into the ocean.

Kawamura said media mistook the intention behind his remark. But he apologized for causing worry and inconvenience to fishermen.

Japan-India nuclear agreement comes into force

July 21, 2017

Japan-India nuclear pact takes effect

https://www3.nhk.or.jp/nhkworld/en/news/20170720_37/

A pact that allows Japan to export its nuclear power technology to India for peaceful purposes has taken effect.

It entered into force after Japan's Ambassador to India, Kenji Hiramatsu, and Indian Foreign Secretary S. Jaishankar exchanged documents in New Delhi on Thursday.

The deal, signed by both governments last November, also enables the countries to exchange know-how on nuclear materials and plant equipment.

Some in Japan are deeply concerned about the agreement. India possesses nuclear weapons and isn't a signatory to the Nuclear Non-Proliferation Treaty.

Japan's government has stressed the significance of the pact. Officials say it effectively brings India within

the international non-proliferation regime.

They have also said Japan will terminate the pact if India conducts a nuclear test.

India is aiming to boost its nuclear power generation capacity 10-fold by 2032 to cope with the chronic electricity shortages that weigh on its fast-growing economy.

The Japanese government wants to see a boost in exports of nuclear power plants to India by highlighting the country's technology and safety measures.

21.07.2017_No144 / News in Brief

Japan Ready For Nuclear Exports To India As Agreement Comes Into Force

<http://www.nucnet.org/all-the-news/2017/07/21/japan-ready-for-nuclear-exports-to-india-as-agreement-comes-into-force>

21 Jul (NucNet): A civil nuclear agreement signed between India and Japan in November 2016 came into force on 20 July 2017, allowing Japan to export nuclear power plant technology and provide finance for nuclear power plants in India. Media reports in India said Japan would also help India with nuclear waste management and could jointly manufacture nuclear power plant components in India. India is the only Non-Proliferation Treaty signatory with which Japan has entered into a civil nuclear agreement. India has ambitious plans for nuclear growth. In May 2017 it approved the construction of 10 indigenous pressurised heavy water reactors (PHWRs) with a total installed capacity of 7,000 MW (gross). The government said India has installed nuclear power capacity of 6,780 MW (gross) from 22 commercially operational plants. Another 6,700 MW (gross) is expected to come online by 2021-22 through projects already under construction. According to the International Atomic Energy Agency, India has five units under construction. Former US president Barack Obama and Indian prime minister Narendra Modi announced last year that engineering and design work would begin for Westinghouse to build six AP1000s in India in a deal that was expected to be signed by June 2017. **Westinghouse has since filed for bankruptcy protection in the US, but told NucNet: "We continue to pursue the India bids as they were structured in a manner that does not include construction risk."** The Economic Times of India said on 20 July 2017 that Westinghouse will supply the technology, but construction will be carried out by an Indian partner.

Adding to TEPCO's problems

June 20, 2017

New TEPCO executives tripping over their tongues

<http://www.asahi.com/ajw/articles/AJ201707200050.html>

THE ASAHI SHIMBUN

Hoping to restore trust in embattled Tokyo Electric Power Co., the company's new chairman and president have instead generated unwanted criticism and hostility in their first gaffe-filled month on the job.

They have added to the problems facing the operator of the crippled Fukushima No. 1 nuclear power plant, which also is hoping to bring its idled reactors back online.

On July 19, TEPCO Chairman Takashi Kawamura, who is also honorary chairman of Hitachi Ltd., was apologizing at the headquarters of JF Zengyoren, a nationwide federation of fishery associations, in Tokyo's Chiyoda Ward. He was forced to explain "the true intention" of remarks he made last week regarding the release of diluted radiation-contaminated water into the sea.

On July 12, during a collective media interview session, Kawamura said "the decision has been made" to do so.

On the Fukushima plant premises, nearly 780,000 tons of water used to cool the reactors are stored, which had been decontaminated of radioactive cesium and plutonium but not tritium. Legally, the tritium-tainted water can be released into the sea, if diluted enough so the concentration of tritium is below a set standard.

However, as the release would add further adversity to the struggling fishing industry in Fukushima and neighboring prefectures, the central government has not made any clear decision on what to do with it. Kawamura, however, also said, "I am on the same line as the opinion of chair Shunichi Tanaka (of Japan's Nuclear Regulation Authority) that it is scientifically safe (to discharge water into the sea)."

On July 14, disaster reconstruction minister Masayoshi Yoshino expressed concerns that releasing the water now would "definitely affect public sentiment" over catches from Fukushima Prefecture, where full-scale fishing had been stalled.

At the July 19 meeting with the fishery federation, Kawamura retracted his comment, saying, "As a company or personally, no decision has ever been made whether to release contaminated water to the sea. The true intention of my comments were not properly understood by some media agency." The TEPCO chairman apologized to Hiroshi Kishi, chairman of the federation, and others at the meeting. Kishi, in return, submitted a letter of protest stating that they "strongly demand not to release radiation-contaminated water to the sea" and it is "unacceptable to the fishery industry and other Japanese people." On the same day, Kawamura admitted to the media what he said a week earlier, explaining that he meant "it cannot be independently decided by TEPCO."

On July 19, in another part of Tokyo, NRA Chairman Tanaka told the media at a regular news conference that he is "boiling with anger" with Kawamura for including him in his comment. He also said Kawamura's remark symbolizes his reluctance to face Fukushima residents.

"He used me as an excuse," said Tanaka, who has suggested releasing water before the storage of contaminated water on the site reaches full capacity. "I have told him he needs to confront Fukushima issues as the first party to resolve them even if he faces a backlash. Despite that, he is still looking for an escape."

On July 10, Kawamura and TEPCO President Tomoaki Kobayakawa attended a meeting with NRA members, including Tanaka, in Tokyo.

There, Kawamura said, "TEPCO has a responsibility to show that it can operate a nuclear power plant," and he was warned by an NRA member for being "overly forward-looking." Currently, none of TEPCO's nuclear power plants are on-line.

On June 27, Kobayakawa also landed in hot water after referring to the town of Futaba, which co-hosts the Fukushima No. 1 nuclear plant, as "where the evacuation order is partially lifted" in a comment to a group of reporters. However, the town has been in a "difficult-to-return zone" since the accident, and no residents are allowed to return to their homes.

At a regular news conference on July 18, a disgruntled Fukushima Governor Masao Uchibori said, "I would like TEPCO to fulfill its responsibility as the operator that caused a severe accident."

(This article was reported by Yoichi Yonetani, Noriyoshi Otsuki, Masanobu Higashiyama and Chikako Kawahara.)

Are nukes compatible with the Constitution?

June 24, 2017

EDITORIAL: Is nuclear power compatible with human rights in Constitution?

<http://www.asahi.com/ajw/articles/AJ201707240022.html>

One year has passed since an evacuation order was lifted on July 12, 2016, for most parts of the Odaka district of Minami-Soma, Fukushima Prefecture, which lies within a 20-kilometer radius of the crippled Fukushima No. 1 nuclear power plant.

Stores and schools in the district are gradually being reopened. Voices of high school students are heard echoing through the streets at times of the day when they go to school and return home. At the same time, though, many stores remain shuttered and grass is running wild in the yards of many houses.

City government figures show that Odaka was home to only 2,046 residents as of July 12, less than one-sixth of the corresponding figure at the time of the 2011 disaster at the nuclear plant, which is operated by Tokyo Electric Power Co. (TEPCO).

The nuclear disaster, triggered by the Great East Japan Earthquake and tsunami, deprived many people of their “lives as usual,” which should have been guaranteed under the Constitution of Japan.

DISASTER HIGHLIGHTED ESSENTIALS OF CONSTITUTION

Katsuaki Shiga, a 68-year-old fisherman, has given up hope of returning to Odaka.

His home, which he had just built near the coastline, was inundated by the tsunami. The home went dilapidated while he was banned entry to the premises in the wake of the nuclear disaster, and Shiga had no choice but to have it dismantled.

“(The disaster) changed not just my life but also the lives of all people in our community,” Shiga said. “That made me think about the essentials of the Constitution, such as the right to life and fundamental human rights.”

The government of Minami-Soma in May last year distributed a brochure containing the entire text of the Constitution to all households in the city.

Yasuzo Suzuki (1904-1983), a scholar of constitutional law who hailed from Odaka, included an explicit mention of the right to life in a draft outline of Japan’s Constitution, which he worked out immediately after World War II ended in 1945.

“**The people shall have the right to maintain wholesome and cultured living standards,**” the draft said, in a prelude to Article 25 of the current Constitution.

Katsunobu Sakurai, mayor of Minami-Soma, wanted the city’s residents to cast their minds back to a starting point at a time when life had taken a sudden turn for the worse for many of them.

Several tens of thousands of inhabitants of Fukushima Prefecture remain evacuated either within or outside the prefecture’s borders. Countless people have lost their longtime livelihoods or dwellings, which means their freedom to choose and change their residences and to choose their occupations (Article 22), along with their right to own or hold property (Article 29), were severely violated.

Many children were no longer able to attend schools in their hometowns, which means their right to an education (Article 26) was also compromised.

And most importantly, the tragedy drove many people into “disaster-related deaths.”

“The nuclear disaster has made it impossible to maintain the sort of life that is described in the Constitution,” Sakurai said emphatically. “That is unconstitutional, isn’t it?”

CONSTITUTION AS PILLAR AND POST

The Fukui District Court in May 2014 issued an injunction against the planned restart of reactors at Kansai Electric Power Co.'s Oi nuclear plant in a lawsuit filed by residents living near the power-generating facility in Fukui Prefecture.

"The use of nuclear energy is meant to fulfill the socially important functions of generating electric power, but that is inferior in standing to the core part of personal rights in light of the Constitution," the court said in its decision.

Akiko Morimatsu said she was given hope by that court decision, which based itself on the Constitution. The 43-year-old heads a group of plaintiffs from the Kansai region in a group lawsuit filed by evacuees from the nuclear disaster, who are demanding compensation from the central government and TEPCO. Worried about her two young children's exposure to radiation, Morimatsu fled to Osaka from Koriyama, Fukushima Prefecture, although the area she was from was not under an evacuation order.

Voluntary evacuees like her, who constitute a minority, have had to face unfriendly eyes both in and outside of Fukushima Prefecture, and have received little help from administrative organs and scanty damage payments from TEPCO.

She said she wondered if she had made the right choice, and she took a fresh look at the Constitution, which she had studied in her student years. She thereupon found such statements as "all peoples of the world have the right to live in peace, free from fear and want" (preamble) and "all of the people shall be respected as individuals" (Article 13).

"This should be the pillar and post for me," Morimatsu said she thought.

She argued that it is up to individual freedom to choose between evacuating and staying, and that all individuals, no matter which option they have chosen, should be granted assistance that allows them to realize the sort of life that is guaranteed under the Constitution.

Seventy years after the Constitution came into force, people are still turning to the supreme law of Japan as a weapon in their fight to win back their "lives as usual." That reality should not be forgotten and should be taken seriously.

CHOICE IS UP TO THE PEOPLE

The use of atomic energy was seldom called into question in light of the Constitution before the Fukushima nuclear disaster occurred.

The development of nuclear power in Japan has been advanced in line with the Atomic Energy Basic Law, which was enacted in 1955, eight years after the Constitution took effect.

The law has the stated goal of the "improvement of the welfare of human society and of the national living standard" and says explicitly that the use of nuclear energy should be limited to "peaceful purposes."

"It used to be taken for granted that the use of nuclear power does not violate the Constitution," said Yoshikazu Sawano, a professor of Constitution studies with the Osaka University of Economics and Law. "The issue was seldom ever discussed within academic circles."

There is probably no doubt that nuclear energy, which can supply large amounts of electric power, has contributed to the economic development of Japan, a country poor in natural resources.

Once there is a nuclear accident, however, that puts the human rights of countless individuals at immediate risk. That danger used to be shrouded under a "safety myth" and was not fully understood by the public.

Even after the Fukushima nuclear disaster affected many people, the central government and electric utilities continue to adhere to their policy of promoting the use of atomic energy.

More than 4 million people are living within a 30-km radius of nuclear power plants across Japan where residents may face evacuation orders in the event of an accident.

The future path of Japan should be reviewed from the perspective of whether the continued use of nuclear power would allow the country to maintain society in a state envisaged by the Constitution.

A national referendum in Austria voted against activating a nuclear power plant, which led the Central European nation to pass a law against building nuclear plants in 1978. Public calls for a phase-out of nuclear power intensified following the 1986 disaster at the Chernobyl nuclear power plant in the former Soviet Union, and a ban on the use of atomic power was included explicitly in Austria's Constitution in 1999.

The right to choose the future path of Japan lies with every single member of the country's public, with whom sovereign power resides. There should be broader discussions that take into account of what has taken place during the latest period of a little more than six years.

--The Asahi Shimbun, July 23

Decommissioning will be a formidable task

July 23, 2017

Melted nuke fuel images show struggle facing Fukushima plant

<http://www.asahi.com/ajw/articles/AJ201707230012.html>

By KOHEI TOMIDA/ Staff Writer

Images captured on July 22 of solidified nuclear fuel debris at the bottom of a containment vessel of the crippled Fukushima No. 1 nuclear power plant show the enormity of decommissioning of the facility. Plant operator Tokyo Electric Power Co. said it will closely study the images from the No. 3 reactor's containment vessel to determine the spread and amount of nuclear fuel debris.

After analysis, TEPCO will decide on a policy to retrieve the fuel debris.

The government and TEPCO plan to start the retrieval process in one of the three crippled reactors at the plant from 2021.

It will be a formidable task, given that a method of recovering debris that is stuck to the floor has yet to be considered.

The recent images were taken by a submersible robot, which was sent into the containment vessel on July 19, 21 and 22.

The No. 3 reactor's containment vessel is filled with water to a depth of 6.4 meters.

On the final day, the remote-controlled robot was dispatched to the deepest part of the containment vessel.

The images showed that pieces that fell from the structure and deposited material accumulated to a height of about 1 meters at the bottom of the containment vessel.

In particular, what is believed to be nuclear fuel debris is scattered in the form of rocks in the area directly beneath the pressure vessel.

The latest investigation has confirmed TEPCO's assumption made through analyses that most of the reactor's nuclear fuel melted through the pressure vessel and accumulated at the bottom of the containment vessel.

It also discovered that the nuclear fuel debris has spread throughout the containment vessel.

The images marked the first confirmation through a robot probe of a **large amount of nuclear debris in any of the embattled No. 1 through No. 3 reactors.**

TEPCO plans to reform

July 26, 2017

TEPCO plans to reform

https://www3.nhk.or.jp/nhkworld/en/news/20170726_22/

The chairman of Tokyo Electric Power Company, or TEPCO, has expressed his intention to decide on a framework for managerial reforms within one year.

Chairman Takashi Kawamura told a government panel on Wednesday that **the firm will cut costs and improve earnings by reorganizing and consolidating its nuclear, power transmission and power distribution businesses.**

TEPCO faces compensation payouts and decommissioning costs of about 187 billion dollars as a result of the 2011 Fukushima nuclear meltdowns.

In the panel meeting, industry minister Hiroshige Seko urged TEPCO to carry out reforms under the leadership of new management.

Japanese data on marine life can be trusted, says IAEA

July 31, 2017

1.07.2017_No150 / News in Brief

Japanese Data On Marine Samples Near Fukushima Reliable, IAEA Concludes

<http://www.nucnet.org/all-the-news/2017/07/31/japanese-data-on-marine-samples-near-fukushima-reliable-iaea-concludes>

Unplanned Events & Incidents

31 Jul (NucNet): Japanese laboratories analysing seawater, marine sediment and fish samples from near the Fukushima-Daiichi nuclear power station in Japan produce reliable data, according to an International Atomic Energy Agency report released on 31 July 2017.

The IAEA report says six missions organised between 2014 and 2016 had shown that Japan's sample collection procedures follow the standards required to obtain representative samples.

It further points out that the results obtained in interlaboratory comparisons "demonstrate a high level of accuracy and competence on the part of the Japanese laboratories involved in the analyses of radionuclides in marine samples for the sea area monitoring programme."

Interlaboratory comparisons and tests involve laboratories separately testing and analysing samples and then comparing results.

Seven Japanese laboratories and three labs from outside Japan took part in the comparisons.

The IAEA has worked with the Japanese laboratories since 2014, following a request by the Japanese government to help it in ensuring that its sea area monitoring around Fukushima-Daiichi maintains a high quality, and is comprehensive, credible and transparent.

The most recent interlaboratory comparison performed late last year involved seawater samples and six batches of fresh fish caught near the Fukushima-Daiichi station.

The seawater samples were analysed for tritium (hydrogen-3), strontium-90, caesium-134 and caesium-137.

The fish samples were analysed for caesium-134 and caesium-137.

Related reports in the NucNet database (available to subscribers):

- Tepco Says It Has Not Made Final Decision On Discharging Contaminated Water Into Sea (News in Brief No.140, 17 July 2017)

No reference to new reactors in energy plan

August 2, 2017

Updated basic energy plan will not refer to new reactors

<http://www.asahi.com/ajw/articles/AJ201708020026.html>

THE ASAHI SHIMBUN

The government will avoid any reference to building new reactors or replacing aging facilities in its basic long-term energy policy, in light of persistent, public opposition to reliance on nuclear energy.

"There has been no development in circumstances that calls for a change of the outline" of the nation's basic energy policy, industry minister Hiroshige Seko said Aug. 1, indicating that the key parts of the existing plan will remain unchanged.

Whether to mention the construction of new reactors had been the focus of attention as the government prepares to undertake its latest review of the plan, which is conducted roughly every three years.

Although the current plan, crafted in 2014, defines nuclear energy as an "important base load power source," **it does not refer to the government's position with regard to the construction of new reactors.**

The nuclear power industry, along with related business circles, have been pushing for the construction of new reactors.

But the Ministry of Economy, Trade and Industry, which oversees the electricity industry, is hesitant to commit to new construction projects in the new energy plan, given the general outcry over nuclear energy following the 2011 Fukushima nuclear disaster.

Seko said the government's decision in 2015 to ensure measures are taken so that nuclear energy accounts for 20 to 22 percent of the nation's overall power output by fiscal 2030 will be achievable without adding new reactors.

“We can attain the objective without building new reactors if existing ones are brought back online,” he said.

Seko added that an advisory panel will meet Aug. 9 to discuss the review of the basic energy plan.

The ministry also plans to hold an inaugural meeting of experts late this month to discuss energy policy through 2050 and whether Japan will need nuclear power plants in the long term.

Five reactors are now operating in Japan after they were certified as meeting more stringent new regulations put in place after the Fukushima disaster.

According to a ministry estimate, the goal of nuclear power accounting for 20 to 22 percent of the nation's energy needs in fiscal 2030 would be achieved if 30 or so existing reactors were in service.

Asahi Shimbun opinion polls since the Fukushima disaster have consistently shown that opposition to nuclear power is almost double that of those who are in favor.

(This article was written by Tokuhiko Saito and Tsuneo Sasai.)

Benefit from restarts?

03.08.2017_No153 / News in Brief

Japan Report Shows Benefits Of Nuclear Restarts

<http://www.nucnet.org/all-the-news/2017/08/03/japan-report-shows-benefits-of-nuclear-restarts>
Plant Operation

3 Aug (NucNet): If 10 nuclear power reactors are restarted in Japan by the end of fiscal year 2018 (March 2019) the value of imported fossil fuels will fall by \$4.55bn (€3.84bn), real GDP will increase by \$4.55bn and CO2 emissions will fall by 2.7%, according to a report by the Institute of Energy Economics.

Combined with the restart of “several” reactors and the increased use of renewable energies, energy-derived CO2 emissions will decline for the fifth consecutive year.

They stood at 1,113 million tonnes in fiscal year 2017 and will be 1,096 million tonnes in fiscal year 2018, down 1.6%, said the Japan Atomic Industrial Forum (Jaif), quoting the report.

According to the Agency for Natural Resources and Energy, replacing the electricity that would have been generated by still-suspended nuclear plants with increased oil-fired or gas-fired power resulted in an increase in fuel costs during fiscal year 2016 of some \$11.8bn compared to the period before the March 2011 earthquake and tsunami that led to the accident at Fukushima-Daiichi and the shutdown of all nuclear units for safety checks.

That represents an increased burden per capita of about \$90 a year, Jaif said.

Five nuclear units have resumed commercial operation in Japan having met revised regulatory standards imposed after Fukushima-Daiichi. They are: Takahama-3 and -4, Ikata-3 and Sendai-1 and -2.

Jaif said seven units have cleared safety examinations under the revised standards and work towards their restart is progressing.

Related reports in the NucNet database (available to subscribers):

- Japan Ready For Nuclear Exports To India As Agreement Comes Into Force (News in Brief No.144, 21 July 2017)

New reactors?

August 10, 2017

Panel members favor new reactors; others ask, 'Why now?'

<http://www.asahi.com/ajw/articles/AJ201708100042.html>

THE ASAHI SHIMBUN

Nuclear energy proponents suggested building additional reactors during an industry ministry committee meeting on Japan's energy policy, but others said now is not the time to discuss such a proposal.

Leaders of energy institutions, consulting agencies and others in the field attended the Aug. 9 meeting of the Strategic Policy Committee of the Advisory Committee for Natural Resources and Energy.

The Ministry of Economy, Trade and Industry convened the meeting to obtain opinions concerning the first update of the basic energy plan in three years.

Takeo Kitsukawa, professor of energy and environment policies at the Tokyo University of Science, Professional Graduate School, suggested debate on whether the country should decommission old nuclear reactors and build new ones in their place.

Nobuko Mizumoto, managing executive officer of IHI Corp., a leading heavy industries company, added: "We would like (the ministry) to consider keeping the option of replacing existing nuclear reactors and establishing new reactors."

Although many at the meeting backed the idea of building new reactors, industry minister Hiroshige Seko showed a cautious stance.

"We do not need to change the basic framework," he said.

A number of committee members favor nuclear power generation, including executives of companies that develop nuclear power facilities and a governor of a prefectural government that has accepted hosting such plants.

But given the ongoing battle at the crippled Fukushima No. 1 nuclear power plant, the dominant view in the industry ministry is that it would be too early to include establishment of new nuclear reactors in the basic energy plan. Instead, voices are calling for the government to focus on resuming operations of idle nuclear reactors for the time being.

Kikuko Tatsumi, executive adviser of the Nippon Association of Consumer Specialists, was one of the few participants to clearly propose abandoning nuclear power generation.

"(We should) directly look at the Fukushima accident," Tatsumi said. "(Please shape) policies that are based on sustainable energies."

Hiroya Masuda, adviser of Nomura Research Institute Ltd., said: "Debate on whether we should newly establish reactors means very little now."

Masahiro Sakane, councilor of Komatsu Ltd. and head of the strategic policy committee, echoed that view, saying discussions on building new reactors should come only after resuming operations of existing reactors.

"I totally cannot understand why we are debating whether we should establish new nuclear reactors even though some reactors could be in operation from tomorrow," he said. "We should look at the realities before discussing the issue."

(This article was written by Tsuneo Sasai and Yoichi Yonetani.)

Hibakusha angry at Japan's hypocrisy

Japan's reluctance to adopt nuclear ban treaty angers hibakusha as Nagasaki marks A-bomb anniversary

<http://www.japantimes.co.jp/news/2017/08/09/national/japans-reluctance-adopt-nuclear-ban-treaty-angers-hibakusha-nagasaki-marks-bomb-anniversary/#.WY2NNsZpyic>

by Sophie Jackman

Kyodo

NAGASAKI – As Hiroshima and Nagasaki marked the 72nd anniversary of the U.S. atomic bombings, aging survivors deplored what they called the hypocrisy by the Japanese government following its decision to stay out of a treaty banning nuclear arms.

Despite anger and calls from the survivors urging Japan to join the historic treaty, a world free of nuclear weapons remains elusive as the atomic-bombed nation sticks to a “realistic approach” advocated by Prime Minister Shinzo Abe.

The prospect of survivors's wishes being fulfilled had looked brighter when Barack Obama became the first sitting U.S. president to visit Hiroshima in May last year, when he espoused “a world without nuclear weapons.”

Last month, just over a year after his visit, the Treaty on the Prohibition of Nuclear Weapons was adopted by 122 members of the United Nations. The accord acknowledges the “unacceptable suffering” of the hibakusha — survivors of the bombings on Aug. 6 and 9, 1945, that killed an estimated 214,000 people by the end of that year.

But Japan and others under the U.S. nuclear umbrella refused to take part in negotiations, as did the world's nuclear-armed states.

Defending Japan's stance, Abe said at a news conference in Hiroshima that joining the treaty could “result in the distance between nuclear weapons and non-nuclear weapons states being further widened.”

His remark angered 78-year-old Hiroshima hibakusha Hiroshi Harada, former head of the Hiroshima Peace Memorial Museum.

“Of course the hibakusha are angry, but we're getting old and those of us who can really speak out are getting fewer and fewer,” Harada said.

The survivors' average age was 81.41 as of March.

“If the Japanese government isn't going to do anything, I don't want (Abe) to keep describing Japan in his speeches as ‘the only country to have sustained atomic bombings in wartime,’ ” Harada said. “If you're going to tout that fact, you need to follow it up with the appropriate action.”

Hiroshima peace activist Haruko Moritaki, 78, said it was “embarrassing” how Japan's envoy turned up on the first day of treaty negotiations at the U.N. headquarters in New York in March, only to say the country would not be taking part.

“Japan has shamed itself on the international stage ... unless we change our policy, we are in no position to try to persuade other countries to abolish nuclear weapons,” she said.

In addition to Japan's reluctant stance, Obama's successor Donald Trump has called for the United States to bolster its nuclear arsenal, staking a position at odds with decades of efforts to scale back the nation's atomic weaponry.

Peter Kuznick, professor of history and director of the Nuclear Studies Institute at American University, said developments since Obama's visit have shown the futility of expecting the U.S. administration to move closer to a world without nuclear weapons.

Speaking in Hiroshima, Kuznick said that while Obama subsequently abandoned consideration of a “no first use” policy that would have made the world safer, and authorized a \$1 trillion program to modernize the U.S. nuclear arsenal, his successor is “impulsive.”

Before his election last year, Trump had also suggested that Japan and South Korea could acquire nuclear weapons in the future, and U.S. Secretary of State Rex Tillerson refused to rule this out in a March interview with U.S. media, according to U.S. reports.

In such an environment, the Abe government has apparently made a judgment that it cannot join the treaty without compromising its heavily U.S.-dependent national security, particularly in light of North Korea’s development of nuclear weapons and ballistic missiles.

“Having seen the transition from Obama to Trump, I’ve found it basically doesn’t matter who’s in charge,” peace activist Moritaki said. “It’s both our duty and our right to stand up for peace on our own.”

But despite the difficult environment facing Japan, Akira Kawasaki, an executive committee member of Tokyo-based nongovernmental organization Peace Boat, said joining the treaty would put Japan in a better position to persuade Pyongyang to disarm.

“Many people do not fully understand the historic importance of this treaty ... it provides a pathway for ex-nuclear weapon states to dismantle their arsenals, and as of the present there’s no other international treaty that does that,” Kawasaki said.

Kawasaki suggests that if Japan cannot join now, it should set a policy goal to join the treaty with one condition: That both North and South Korea must also join at the same time.

“Having North Korea join the treaty will benefit Japan and South Korea in a security sense, while those two countries will have to commit to not stationing U.S. nuclear weapons on their soil, thus reassuring North Korea and encouraging it to disarm,” he said.

Although such a move might be mere symbolism without a change of leadership in North Korea, it is something the Abe government can do for now to regain some integrity as the guardian of the only country to have sustained wartime atomic bombings, Kawasaki said.

Some sort of commitment — that is what 83-year-old Sachiko Matsuo called for in Nagasaki, where at age 11 she lived through the atomic bombing that killed nearly half her family.

“We hibakusha have taken our time to get to this point, so we understand that not everything can be done quickly,” she said. “But (Japan) mustn’t give up. What we need is a first step.”

History lessons should be heeded

August 15, 2017

EDITORIAL: Lessons learned from history still relevant 72 years after war’s end

<http://www.asahi.com/ajw/articles/AJ201708150029.html>

What color was the world at the time of World War II?

Some young Japanese say they have the impression that the entire world was colorless at that time, with everything in black and white.

That’s because, they say, they have only seen monochrome photographs and videos showing scenes of the war, such as air raids and battlefields.

“I thought wartime Japan was a completely different world from our society today,” said Non, a 24-year-old Japanese actress who voiced the heroine of the 2016 Japanese animated film “Kono Sekai no Katasumi-ni” (In This Corner of the World), which depicts Japanese people’s lives during wartime.

The anniversary of the end of the war, Aug. 15, has rolled around again.

Many members of the younger generation seem to feel uncomfortable when they hear older Japanese talk about such topics as pledges to renounce war or passing on the nation's war experiences to future generations.

"Times are different now," they often say.

Indeed, history doesn't exactly repeat itself. Forms of warfare change with the times.

But there are common social factors underlying all kinds of war. Here lie the lessons of history.

WARTIME ECONOMIC BOOM

In August 1937, one month after the start of the Second Sino-Japanese War (1937-1945), Kafu Nagai, a Japanese writer, wrote his observations of life in Tokyo in his diary.

"As I see the lives of residents in Tokyo these days, they appear to be feeling considerable satisfaction and happiness without feeling any anxiety about the militarist politics, feeling no fear for the war. They rather seem to be delighted at the situation," he wrote.

Japan posted a torrid economic growth of 23 percent that year, thanks to thriving military industries. The nation was in boom times.

Two years later, when Japan's war with China had bogged down with the front expanded deep into the interior of China, Tokyo's Ginza prime shopping district remained vibrant.

There were long lines of people in front of movie theaters. Fashion-conscious women enjoyed wearing short skirts. Trendy colors were crimson like the color of the flower of peony and soft bluish green, the color of bamboo. During the night, neon-lit streets in Ginza were thronged by tipsy corporate employees. The war was only being fought overseas, far from Japan. Japanese living in cities those days were feeling as if the war had nothing to do with them, according to records of the times.

"Where is the war going on, anyway?" they asked nonchalantly.

It was too late when people realized that the war was on their doorstep.

"I found / The war / Standing in the depth / Of the corridor"

This is a short poem composed in that year by Hakusen Watanabe, an up-and-coming haiku poet at that time.

In the following year, he was arrested on suspicion of violating the public security preservation law because of his artistic activities.

As Watanabe observed accurately, the times were radically changing, with things that were normal mixed with those that were not.

SEEING TODAY'S JAPAN FROM HISTORICAL PERSPECTIVE

The first notable trend that emerged as Japanese society came under the oppressive rule of the wartime militarist government, and that never reversed itself, was the rejection of diversity.

In Japan's colonies, including Korea and Taiwan, as well as in Okinawa, the government carried out education programs aimed at integrating the areas into Japanese systems. In Japan's mainland, academic freedom and freedom of speech were rapidly restricted through various developments including a harsh crackdown on the academic theory that the emperor was an organ of the state.

There were people who were not aware that they enjoyed their lives at the expense of these values and those who knew that but didn't stand up for the values.

Later generations know what fate befell Japan in the following years.

It is easy to find and talk about past turning points from the perspective of history.

Let us imagine how future generations of Japanese will assess the current situation of this country.

Writer Kazutoshi Hando argues that since the start of its modernization, Japan has been undergoing a 40-year rise-and-fall cycle.

He says Japan has experienced 40-year periods of ups and downs alternately--the period of rise between the end of the Tokugawa Shogunate until the war with Russia, the subsequent period of decline that ended with Japan's defeat in the war and the following period of economic expansion that ended with the bursting of the so-called bubble economy. Now, Japan is again in a period of decline, according to the writer.

"People forget what happened after 40 years or so," Hando says. "There were few Japanese leaders during the periods of the Sino-Japanese War and the Pacific War who had a clear understanding of the misery of the Russo-Japanese War. The same is true with Japanese politicians today."

VOICES WARNING ABOUT THE MOOD OF TODAY'S JAPAN

Like many other scholars and researchers, Hando doesn't like to casually say, "History repeats itself." That's because he knows the complexity of history, which is made of countless small facts and coincidences as well as backgrounds behind them all.

Even so, a growing number of people well-versed in Japanese history have been warning in recent years that there are certain similarities between Japanese society today and that in the prewar period.

The new national security legislation and the "anti-conspiracy" law are often cited as symbols of the dangerous atmosphere. But they are not the only reasons to worry.

There are also some deeper trends that raise concerns, such as an excessive focus on the country's own interests, disparaging comments about other countries and races, the notion that public order should be placed before the rights of individuals and intolerance toward criticism of the government's ideas about national interests and values.

Hando warns that people's ideas and spirits that make history don't change much over time.

There are, of course, certain factors that set today's Japan apart from its past self.

We have established and cherished a Constitution that guarantees the freedom of expression, thought and academic pursuit. We don't have the military power to wage a war. More than anything, we, the people with whom resides sovereign power, have the power to choose our own government.

We need to be aware of the fact that we are living in a society whose history has continued from the Japan that suffered catastrophe 72 years ago. To prevent another national catastrophe, we need to monitor closely what is happening right now and try to stop dangerous movements, if any, by speaking clearly against them.

This is, we believe, the responsibility that citizens and the news media of today should fulfill for the future of this nation.

The sky above Japan on Aug. 15, 1945, was not monochrome. The nation was under a bright blue summer sky.

--The Asahi Shimbun, Aug. 15

New lawsuit for TEPCO

August 24, 2017

TEPCO gets slapped with new U.S. lawsuit over Fukushima

<http://www.asahi.com/ajw/articles/AJ201708240040.html>

REUTERS

Tokyo Electric Power Co. Holdings said on Thursday it has been hit with another lawsuit filed in a U.S. court seeking \$5 billion (546 billion yen) for compensation over the 2011 Fukushima nuclear disaster, the second filed against the utility in a U.S. court.

The suit filed by 157 individuals is seeking that amount to set up a compensation fund for the costs of medical tests and treatment they say they need after efforts to support the recovery from the world's worst nuclear disaster since Chernobyl in 1986.

The utility, known as TEPCO, is being sued regarding improper design, construction and maintenance, claiming compensation for physical, mental and economic damages, the company said in a statement. A multi-plaintiff lawsuit was filed on Aug. 18, 2017, against Tokyo Electric Power Co. and other parties in the Southern District Court in California, the legal information group Justia said on its website.

TEPCO has been hit with more lawsuits than in any previous Japanese contamination suit over the meltdowns of three reactors at its Fukushima No. 1 plant north of Tokyo after a massive earthquake and tsunami in March 2011.

Radiation forced 160,000 people from their homes, many never to return, and destroyed businesses, fisheries and agriculture.

In June, a federal appeals court cleared the way for a group of U.S. military personnel to file a suit against TEPCO over radiation exposure that they say occurred during recovery efforts on board the USS Ronald Reagan.

TEPCO did not make clear whether the two suits involved the same plaintiffs but Justia has two cases listed.

Shareholders of TEPCO are suing the utility's executives for a record 5.5 trillion yen in compensation, in a long-standing case.

The company's former chairman and other executives of the company appeared in court in June to answer charges of professional negligence, in the first criminal case after the meltdowns at the plant. They all pleaded not guilty.

The criminal and civil legal cases do not threaten financial ruin for TEPCO, which is backstopped by Japanese taxpayers. The company faces nearly \$150 million of costs to decommission the Fukushima plant and clean up the surrounding area, according to the latest government estimate.

TEPCO shares fell nearly 1 percent on Thursday, in line with many of Japan's other utilities, before the company announced the lawsuit.

What energy plan for the future?

August 27, 2017

National energy plan needs a major review

<https://www.japantimes.co.jp/opinion/2017/08/27/editorials/national-energy-plan-needs-major-review/#.WaLgqMZpxLP>

The Ministry of Economy, Trade and Industry has begun a review of the government's Basic Energy Plan — three years after its last update in 2014 by the administration of Prime Minister Shinzo Abe. The current plan, the first adopted in the wake of the March 2011 catastrophe at the Fukushima No. 1 nuclear plant, lacks clear direction and features apparent inconsistencies, such as its call for reducing “as much as possible” the nation's dependence on nuclear power as a source of electricity while at the same time

characterizing nuclear energy as an “important baseload power source” that contributes to a stable energy supply. Under this policy, the Abe administration and the power companies have pushed for restarting nuclear reactors taken offline after the 2011 crisis once they have cleared screening by the Nuclear Regulation Authority (NRA).

In the review to be completed by the end of the current fiscal year, METI reportedly intends to keep the basic outline of the current plan intact — because of the political sensitivities surrounding nuclear power six years after the 2011 disaster. However, the government should overhaul the plan with a more pragmatic assessment of the prospect of nuclear power in this country, which could also affect Japan’s commitment to reducing its greenhouse gas emissions, and a greater emphasis on renewable energy. Based on the 2014 plan, the government envisages an energy mix in 2030 where nuclear power will account for 20 to 22 percent of the nation’s electricity output — compared with nearly 29 percent in 2010, the last year before the Fukushima crisis. Since power companies have decommissioned several aging reactors under the tightened safety regulations, that target would likely not be achieved unless almost all of the remaining reactors — including the four at Tokyo Electric Power Company Holdings Inc.’s Fukushima No. 2 plant — are restarted and the operations of many of them are extended beyond the 40-year rule to the maximum 60 years allowed as “exceptions.

That hardly sounds like shedding the reliance on nuclear power. But the feasibility of that target is another question. Restarting the idled reactors has so far not progressed as much as hoped by the power industry, which faces a heavy financial burden from having to import fuel to run thermal power plants instead. Of the 26 reactors whose restart have been sought by 11 power firms, only five have been brought back online after clearing the NRA’s screening under the post-Fukushima disaster safety regulations and getting the nod of host local governments. In fiscal 2016, the share of nuclear power in the electricity supply stood at a mere 2 percent.

Popular concern over the safety of nuclear power remains strong, as shown in media surveys that point to steep opposition to restarting of the idled reactors. Lawsuits have been filed to prevent power companies from reactivating their reactors — with some court orders issued, though later reversed, to halt their operations. Behind METI’s intention to avoid a major overhaul of the Basic Energy Plan, including discussion on the question over construction of new reactors, is said to be the political sensitivities to the public opinion still wary of nuclear power, particularly as popular approval ratings of the Abe administration have come down sharply in recent months.

A recent estimate by Bloomberg New Energy Finance, a private research institute, forecast that nuclear power will account for about 10 percent of Japan’s electricity output in 2030 — less than half the government’s energy mix target — and that power companies will instead turn more to coal-fired thermal power plants, pushing up the share of coal to as much as 38 percent of the total supply in 2030, far above the government’s target of 26 percent and even higher than the 30 percent last year.

The government has long relied on nuclear energy as a key pillar of the nation’s measures against climate change, given that nuclear reactors do not generate carbon dioxide in power generation. However, the cloudy prospects of nuclear power cast doubt on reaching the government’s targets for reducing the nation’s emissions of global warming gases, including the goal of cutting emissions in 2030 by 26 percent from 2013 levels. Furthermore, Japan’s continued emphasis on coal-fired plants — which are popular in the power industry because of their low fuel cost but which emit far more carbon dioxide than other forms of power generation — goes against the global trend of other countries shedding coal to combat climate change. Power companies in Japan have plans to build roughly 40 new coal-fired thermal power plants.

As it is, the Basic Energy Plan does not appear to reflect the broad changes that have taken place in the energy landscape both in Japan and overseas. The once-touted cost advantages of nuclear power now appears to be in doubt with the added safety requirements following the 2011 disaster, with a number of counties rethinking their nuclear power plans. Introduction of renewable energy such as solar and wind power had expanded in recent years, significantly pushing down their costs. While the plan calls for expanding “as much as possible” the share of renewable energy in Japan, their target in the 2030 energy mix is set at a modest 22 to 24 percent — just slightly above the target for nuclear power, and even lower than the one for coal-fired plants. The plan merits a major review in view of these developments.

Rebuilding: Signs of progress?

August 29, 2017

Lowest reconstruction budget request

https://www3.nhk.or.jp/nhkworld/en/news/20170830_11/

The rebuilding of areas hit by the 2011 earthquake and nuclear accident is showing signs of progress. Japan's Reconstruction Agency plans to request a budget of nearly 15 billion dollars for the next fiscal year, a record low.

Officials will ask for about 14.8 billion dollars for fiscal 2018.

That's roughly 10 percent less than the original budget for the current fiscal year, and it marks a decline for the 5th year in a row.

The request includes about 10 million dollars for nursing care services and personnel in disaster-hit Fukushima Prefecture.

It also has more than 140 million dollars to build research and development facilities related to radioactive substances and robots.

The actual funding amount is expected to grow when the agency finalizes its budget after getting more details from local governments.

NRA getting tougher on TEPCO?

August 30, 2017

NRA chair ties nuke plant restart to TEPCO taking lead on Fukushima decommissioning

<https://mainichi.jp/english/articles/20170830/p2a/00m/0na/017000c>

Tokyo Electric Power Co. (TEPCO) must take the lead on decommissioning reactors at the disaster-stricken Fukushima No. 1 nuclear plant if it wants reactors at another of its plants to pass safety inspections, Nuclear Regulation Authority (NRA) Chairman Shunichi Tanaka told the Mainichi Shimbun in an Aug. 29 interview.

- **【Related】** TEPCO begins extending ice wall to reduce tainted water in Fukushima
- **【Related】** Highly radioactive water leak at Fukushima No. 1 nuke plant

"TEPCO must do things based more on its own judgment," and not depend so much on the government and other organizations, said Tanaka, whose term as NRA chairman comes to a close on Sept. 18 this year. Tanaka added that the No. 6 and 7 reactors at TEPCO's Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture would only pass NRA safety screenings if the utility took the initiative in the Fukushima decommissioning. The reactors must pass the inspections before they can be restarted.

The NRA was to summon TEPCO Chairman Takashi Kawamura and President Tomoaki Kobayakawa on Aug. 30 to sound the executives out about the utility's intentions regarding the reactor decommissioning at the Fukushima No. 1 plant and ideas about safety, among other issues.

"We want to confirm whether the top people at TEPCO are aware of their responsibility for the Fukushima No. 1 plant accident, and if they are resolved to deal with it properly," Tanaka told the Mainichi. He had earlier expressed concerns that the utility has so far proven unable to process radioactive tritium-contaminated water, and that the water continues to collect at the plant.

"If TEPCO is unable to finalize the decommissioning of the Fukushima reactors, it is simply not qualified to restart the Kashiwazaki-Kariwa plant," Tanaka has said. TEPCO submitted a written response to Tanaka's position on Aug. 25, but the document did not include a concrete plan to deal with the contaminated water.

Tanaka pointed out during the Mainichi interview that there were people and industries such as the fishery sector that could be impacted by the water issue, saying, "TEPCO likely can't reveal anything because there are people on the receiving end of this. More than concrete plans, we are asking TEPCO management about their ideas on safety."

More irregularities at Rokkasho Village

September 3, 2017

Nuclear plant operator halts uranium production

https://www3.nhk.or.jp/nhkworld/en/news/20170903_04/

The operator of a uranium enrichment plant in northern Japan has suspended uranium production to see if there are problems with its quality control system.

The plant in Rokkasho Village, Aomori Prefecture, is **the only commercial facility in Japan to enrich uranium for nuclear power generation.**

A division of Japan Nuclear Fuel Limited that operates the plant was ordered to improve its quality control system last year.

It reported to the president that steps were taken, which turned out not to be true.

The Nuclear Regulation Authority then approved measures to prevent similar irregularities.

The operator met the government requirements for producing uranium in May.

In one of a series of safety mishaps, a fire started at an emergency power generator. The operator had failed to replace parts for 28 years, more than 10 years longer than recommended by the manufacturer.

Officials at the authority said they wonder if the operator has the ability to determine problems and challenges.

Japan Nuclear Fuel decided to take uranium out from enrichment facilities and once again check quality control problems.

But is there such a thing as "acceptable" levels of radiation?

Fukushima 311 Voices refutes this article on September 6, 2017

<https://fukushima311voices.wordpress.com/2017/09/06/new-study-says-minami-soma-as-safe-as-western-japan-cities-do-they-really-expect-us-to-believe-this/>

<http://www.fukushima-is-still-news.com/2017/09/fukushima-311voices-do-they-really-expect-us-to-believe-this.html>

September 5, 2017

Fukushima city shows radiation level is same as in west Japan

<http://www.asahi.com/ajw/articles/AJ201709050042.html>

By SHINTARO EGAWA/ Staff Writer

MINAMI-SOMA, Fukushima Prefecture--Radiation readings here on the Pacific coast north of the crippled Fukushima No. 1 nuclear power plant are almost identical to those of sample cities on the other side of Japan.

The Minami-Soma government initiated the survey and **hopes the results of the dosimeter readings, released Sept. 4, will encourage more evacuees to return to their home areas** after they fled in the aftermath of the 2011 nuclear disaster.

A total of 100 portable dosimeters were handed out to 25 city employees from each of four cities--Minami-Soma, Tajimi in Gifu Prefecture, Fukuyama in Hiroshima Prefecture and Nanto in Toyama Prefecture. They were asked to take them wherever they went from May 29 through June 11.

The staff members were evenly dispersed with their homes in all corners of the cities they represented. In addition, only those living in wooden houses were selected as different materials, concrete walls, for example, are more effective in blocking radiation.

In July 2016, evacuation orders for most parts of Minami-Soma were lifted, but not many residents have so far returned.

The city's committee for health measures against radiation, which is made up of medical experts, analyzed the data.

The median value of the external radiation dosage of the 25 staff of Minami-Soma was 0.80 millisieverts per annum, while the average value was 0.82 mSv per annum, according to Masaharu Tsubokura, the head of the committee and a physician at Minami-Soma general hospital.

No significant difference was found in the three western cities.

Both figures were adjusted to include the natural radiation dose, and are below the 1-mSv per annum mark set by the national government as the acceptable amount of long-term additional radiation dosage, which is apart from natural radiation and medical radiation dosages.

The radiation doses in all cities were at levels that would not cause any health problems, according to Tsubokura.

"Making comparisons with other municipalities is important," Tsubokura said. "I am intending to leave the survey results as an academic paper."

Why has NRA changed its mind?

September 7, 2017

Nuclear regulator does dizzying U-turn on TEPCO reactor restart plans

<https://mainichi.jp/english/articles/20170907/p2a/00m/0na/019000c>

Tokyo Electric Power Co. (TEPCO), the utility responsible for the Fukushima No. 1 nuclear plant and its March 2011 triple meltdown, is aiming to get the reactors at its other power plants back on line.

- **【Related】** TEPCO's Niigata nuclear plant set to clear screening to restart reactors
- **【Related】** Mayor to link reactor decommissioning to restarting 2 others at same TEPCO plant
- **【Related】** NRA chair ties nuke plant restart to TEPCO taking lead on Fukushima decommissioning

The Nuclear Regulation Authority (NRA), which must approve any restarts, had been holding to a very strict line on TEPCO applications. However, on Sept. 6 the NRA abruptly changed track, **taking a more sympathetic attitude** and indicating that the No. 6 and 7 reactors at the utility's Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture would likely pass their safety inspections -- a prerequisite for restart approval.

Despite the NRA's suddenly sunny attitude, the prefectural government has not budged from its more cautious position. And TEPCO, which has made the Kashiwazaki-Kariwa plant a chief pillar of its business recovery plans, cannot flip the reactors' "on" switch without the prefecture's imprimatur, meaning the plant still has no clear restart schedule.

When the NRA summoned TEPCO President Tomoaki Kobayakawa and other top managers on July 10 this year to testify on the utility's competence to keep running nuclear plants, authority chairman Shunichi Tanaka was unequivocal and unforgiving.

"If TEPCO is unwilling or unable to finalize the decommissioning of the Fukushima (No. 1 station) reactors, it is simply not qualified to restart the Kashiwazaki-Kariwa plant," Tanaka told the executives, adding, "I don't see TEPCO showing any independent initiative whatsoever."

The NRA chairman was referring to the longstanding problems with contaminated water and radioactive waste disposal plaguing TEPCO's Fukushima plant decommissioning efforts. The utility tends to focus too much on trying to read the government's mind on any and all Fukushima issues -- an attitude that has long drawn NRA criticism.

When the NRA inspected the Kashiwazaki-Kariwa plant's No. 6 and 7 reactors, it added a new evaluation category to the usual technological checklist, though it was not part of the new safety standards:

"eligibility." That is, TEPCO's eligibility to run a nuclear power plant at all. After all, it was one of TEPCO's plants that had succumbed to the worst nuclear disaster since Chernobyl. "TEPCO is different from other (power) companies," Tanaka had said.

TEPCO President Kobayakawa and Chairman Takashi Kawamura are also a source of NRA concern. The two had no role in the utility's response to the 2011 meltdowns, and Kobayakawa replaced a much more experienced hand in Naomi Hirose, a TEPCO managing director when the disaster struck. After his NRA dressing-down in July, Kobayakawa apparently visited the Fukushima disaster zone seven times.

However, **there has been an apparent U-turn in Tanaka's stance.** A document submitted on Aug. 25 to the NRA under Kobayakawa's name was sewn with phrases like, "We will carry the (Fukushima) reactor decommissioning through to the end," and other terms suggesting a determined TEPCO attitude. At the same time, the document was bereft of details on specific preparedness measures or progress benchmarks for the decommissioning work.

Nevertheless, when Kobayakawa again appeared before the NRA on Aug. 30, the body indicated its acceptance of TEPCO's position. Taking the contaminated water problem "as one example," Tanaka stated that he recognized TEPCO's lack of concrete countermeasure planning couldn't be helped under the circumstances. One NRA executive revealed to the Mainichi Shimbun, **"We avoided demanding a detailed (disposal measures) plan because we don't legally have that authority, and doing so could pose legal risks."**

Pro-TEPCO sentiment was on conspicuous display when the NRA met again on Sept. 6, including acting Chairman Toyoshi Fuketa's declaration that he "felt TEPCO's drive to pass on the lessons of the (Fukushima nuclear) accident."

Committee member Nobuhiko Ban stated that while the document the utility had submitted in the summer was a "declaration of intent," he was "concerned over whether this alone can constitute eligibility" to run a nuclear plant. However, Tanaka wrapped up discussion by saying that "circumstances are not such that we can deny (TEPCO's) eligibility."

Tanaka will leave his NRA post on Sept. 18 after completing his five-year term in the chairmanship, and at a post-meeting news conference he was asked if he had wanted to bring the TEPCO issue to a close while in office.

"I can't say that I've never felt that way," Tanaka replied.

Let's discuss strategy

September 8, 2017

Commentary / World

Kim Jong Un's nuclear strategy isn't mad

Since North Korea is rational, deterrence can still work

<https://www.japantimes.co.jp/opinion/2017/09/08/commentary/world-commentary/kim-jong-uns-nuclear-strategy-isnt-mad/#.WbOWqMZpyos>

by Tetsuo Kotani

A sense of alarm is rising throughout the world as North Korea follows up its war rhetoric with two intercontinental ballistic missile tests, a missile launch plan aimed at Guam, a missile launch over Japan, followed by its sixth nuclear — and possibly its first successful thermonuclear — bomb test. North Korea is on the verge of establishing the ability to mount a miniaturized thermonuclear warhead on an ICBM that could reach Washington, London or almost anywhere else.

North Korean leader Kim Jong Un and his regime are making every effort to acquire nuclear deterrence vis-a-vis the United States without fear of failure and isolation. Kim may seem desperate and losing his senses. But make no mistake; he is not mad despite his unique appearance and belligerent rhetoric. On the contrary, his actions are rational when viewed from the perspective of nuclear deterrence theory.

It makes strategic sense for North Korea to develop multiple strike capabilities while enhancing their survivability with solid-fuel technology, road mobility and submarine-launch technology. North Korea must still successfully develop warhead re-entry technology and will also seek MIRV technology — placing multiple independent warheads on each ballistic missile — to make them more difficult for the U.S. to intercept. But it's a matter of when, not if.

North Korea's nuclear and missile program has its origin in former leader Kim Il Sung's statement in 1965, in which he ordered the military to develop long-range strike capabilities to attack Tokyo and Washington. North Korea failed to unify the Korean Peninsula during the Korean War due to the intervention by U.S.-led U.N. forces. Japan served as a logistics base during the war. In short, North Korea's nuclear and missile program aims to deter another U.S.-led military intervention. After several decades, North Korea is finally realizing its founder's long-cherished wish.

Japan has been within the reach of North Korea's short- and intermediate-range ballistic missiles, with or without chemical and biological warheads, since the early 1990s, while South Korea has been under the threat of a vast heavy artillery force deployed along the DMZ since the 1953 armistice. This force constitutes North Korea's actual deterrence against any U.S. "aggression." The U.S. set several red lines to stop North Korea's nuclear program but never enforced them due to the North's massive conventional war capabilities. As a result, those red lines became a red carpet.

In 1994, for instance, when the Clinton administration considered a preventive strike on North Korean nuclear facilities, the U.S. military estimated that 50,000 U.S. soldiers, 500,000 South Korean soldiers, and a million civilians, including 100,000 U.S. citizens, would be killed in 90 days. Those figures were unacceptable to President Bill Clinton. Today, 200,000 U.S. citizens live on the peninsula — a figure almost the same as the population of Pittsburgh. No U.S. president, not even Donald Trump, can easily make a decision to use force to eliminate North Korea's nuclear and missile programs when it means sacrificing so many U.S. citizens.

In addition, Kim will soon acquire the ability to directly destroy any targets in Guam, Hawaii and the continental U.S. with nuclear-armed ballistic missiles. From the fates of Iraq President Saddam Hussein and Libyan leader Moammar Gadhafi, Kim learned that countries which give up their nuclear ambitions will face regime change. So, dissuasion is no longer a realistic solution for the North.

Prevention is not a solution, either. North Korea is, whether people like it or not, a de facto nuclear weapon state with multiple delivery means. A preventive surgical strike would become a full-scale war with massive casualties on both sides, and could go nuclear.

This does not mean, however, that pre-emption is off the table. If North Korea poses an imminent threat, the U.S. and its allies should defend and defeat. Provocations by North Korea must also be proportionally responded to by the U.S. and its allies to prevent further escalation.

More importantly, the U.S. and its allies should enhance deterrence with massive retaliation and denial capabilities. North Korea's priority is survival and therefore it regards its nuclear arsenal as a deterrent rather than a device for aggression. Pyongyang has repeatedly announced that U.S. "hostility" is the main driver of its nuclear missile development. If so, the U.S. and its allies can deter North Korean aggression even after the desperate state obtains a nuclear deterrent. In short, North Korea's nuclear-armed ICBM is not a game changer.

But if Kim believes North Korea and the U.S. are mutually deterred and feels safe, he might try to coerce South Korea and Japan with nuclear blackmail to achieve his political objectives, such as the withdrawal of American troops from the two countries. As strategists say, it's a typical stability-instability paradox. To prevent North Korea from successfully decoupling the U.S. and its allies, Washington, Tokyo and Seoul should come up with a common strategic goal and a strategy to achieve it.

There is no easy, short-term solution. There needs to be a long-term strategy. Is denuclearization a realistic goal? Are we ready for nuclear arms control with North Korea? Are we willing to talk with Kim or are we seeking regime change? What is the best mix of pressure and engagement? How do we prevent North Korea from launching a desperate attack? Do we prefer a unified Korea or not? How do we strengthen trilateral cooperation for deterrence and defense? How do we engage with China, Russia and other reluctant partners? These are some of the questions that need to be answered to formulate a strategy.

It might take long to negotiate a trilateral strategy at a time when North Korea is about to obtain a nuclear deterrent. But since North Korea is rational, not mad, deterrence can work. Let's not discuss a U.S. preventive strike. Let's discuss strategy. There is no time to waste.

Tetsuo Kotani is a senior fellow at the Japan Institute of International Affairs. He covers Japan's security policy and the Japan-U.S. alliance.

Japan should stick to its 3 non-nuclear principles

September 9, 2017

Editorial: Japan must stick to non-nuclear principles

<https://mainichi.jp/english/articles/20170909/p2a/00m/0na/009000c>

Shigeru Ishiba, former secretary-general of the ruling Liberal Democratic Party (LDP), called for discussions on a review of Japan's three non-nuclear principles of not possessing, not producing and not bringing in nuclear weapons.

- **【Related】** Japan should discuss deployment of US nukes inside country: Ishiba
- **【Related】** Komeito chief insists Japan stick to 3 non-nuclear principles, rejects nuke deployment

Specifically, Ishiba suggested that the third principle of not bringing in such weapons be re-evaluated to open the way for the deployment of U.S. nuclear weapons in Japan.

Debate on the deployment of U.S. nuclear arms could send the wrong message to China and other countries and adversely affect international cooperation in pressuring North Korea to abandon its nuclear weapons program.

Ishiba said, "Is it right to refuse the deployment of nuclear weapons inside the country while relying on U.S. nuclear arms for protection?"

Behind his remark is the idea that the deployment of nuclear arms in Japan, which would be exposed to a direct threat if North Korea possesses nuclear missiles, would enhance deterrence.

Ishiba pointed out that NATO has countered threats from the former Soviet Union and Russia by deploying U.S. nuclear weapons in its member countries, and said, "Such discussions are necessary to increase the usefulness of the nuclear umbrella." However, the security environment in East Asia is significantly different from that in Europe.

After China successfully conducted a nuclear test in 1964, there were discussions on the pros and cons of Japan arming itself with nuclear weapons. Nevertheless, then Prime Minister Eisaku Sato announced Japan's three non-nuclear principles in 1967, and the principles took root in Japan as an important part of its national policy in the process of the Ogasawara Islands south of Tokyo and Okinawa being returned to Japan's sovereignty from U.S. occupation in 1968 and 1972, respectively.

In adopting the principles, the government didn't just consider the Japanese public's sentiments as the only atomic-bombed country. Japan's calls for nuclear arms reduction and nuclear disarmament have been a pillar of Japan's diplomatic policy, and the denuclearization of East Asia, including the Korean Peninsula, is an important goal for Japan.

While falling under the protection of the U.S. nuclear umbrella, Japan has managed to maintain its goal of nuclear disarmament by adhering to its three non-nuclear principles.

It is necessary to re-examine Japan's diplomatic and security policies in the face of the growing threat posed by North Korea. That does not mean, however, that Japan can disregard the accumulation of historical and multifaceted discussions that led to the adoption of the non-nuclear principles as its national policy.

Fears persist in the international community that if North Korea were to possess nuclear missiles, Japan and South Korea would also arm themselves with nuclear weapons to deter the threat from Pyongyang. It was appropriate that Chief Cabinet Secretary Yoshihide Suga promptly ruled out the possibility of Japan debating a review of the three non-nuclear principles, saying, "The government isn't considering deliberating the matter."

We fear Ishiba's remarks could undermine Japan's ultimate goal of realizing a world without nuclear arms.
September 8, 2017

EDITORIAL: Even in face of N. Korean threat, anti-nuke policy should remain

<http://www.asahi.com/ajw/articles/AJ201709080020.html>

With Japan facing the challenge of responding to North Korea's continuing nuclear arms program, former Defense Minister Shigeru Ishiba of the ruling Liberal Democratic Party has suggested a review of the nation's long-standing three non-nuclear principles.

Appearing in a TV Asahi program, Ishiba asked, "Is it a viable argument that we will not accept (nuclear weapons) in Japan while saying that the nation will be protected under the U.S. nuclear umbrella?"

The simple answer to his question is, "Yes, it is a viable argument."

The three principles of not producing or possessing nuclear weapons and not allowing their entry into Japan were first announced in 1967, during the Cold War, by then Prime Minister Eisaku Sato. Since then, the principles have been followed by Japan's successive Cabinets.

This is a key national creed of postwar Japan and a product of its desperate attempt to come to terms with the reality that it relies on the U.S. nuclear deterrence for its security despite its strong desire to help eliminate nuclear arms from the world, driven by its experiences as the only country that has ever suffered nuclear attacks.

The United States doesn't disclose, in principle, where it deploys its nuclear weapons. It is therefore difficult to confirm that the U.S. forces have not brought nuclear arms into Japan.

Even so, Japan's commitment to the three non-nuclear principles has been a pillar of the nation's foreign policy even after the end of the Cold War.

Japan's move to reconsider the principles could prompt South Korea and Taiwan to seek their own nuclear arsenals, triggering a nuclear domino effect.

In South Korea, there are already calls for the redeployment of U.S. tactical nuclear weapons to the country and even for its own nuclear armament.

The moves of South Korea and Taiwan to arm themselves with nuclear arsenals would seriously undermine the Nuclear Nonproliferation Treaty regime, giving North Korea a rationale for developing nuclear arms.

What is more important than anything else for the efforts to deal with North Korea's nuclear program is solidarity among Japan, the United States and South Korea. The three countries should act on their united front to seek cooperation from China and Russia, which have significant influence over Pyongyang.

Japan should contribute to this strategy by sending out a strong message about its resolve to seek the denuclearization of Northeast Asia including the Korean Peninsula.

Japan's solid commitment to the three non-nuclear principles will underpin its diplomatic efforts for this goal.

Made under these circumstances, Ishiba's remarks could cause diplomatic repercussions that can chip away at the foundation of Japan's diplomacy based on its non-nuclear principles. We cannot help but question his view on the issue.

As possible examples of allowing U.S. nuclear arms into Japan, Ishiba cited port calls made by U.S. strategic missile submarines carrying nuclear warheads at the U.S. Navy's Yokosuka base in Kanagawa Prefecture or the Sasebo base in Nagasaki Prefecture.

The port calls at bases in Japan, which are close to North Korea, however, would not make much strategic sense.

In addition, such actions by the U.S. forces could provoke backlashes from some neighboring countries and make Japan a target should war break out.

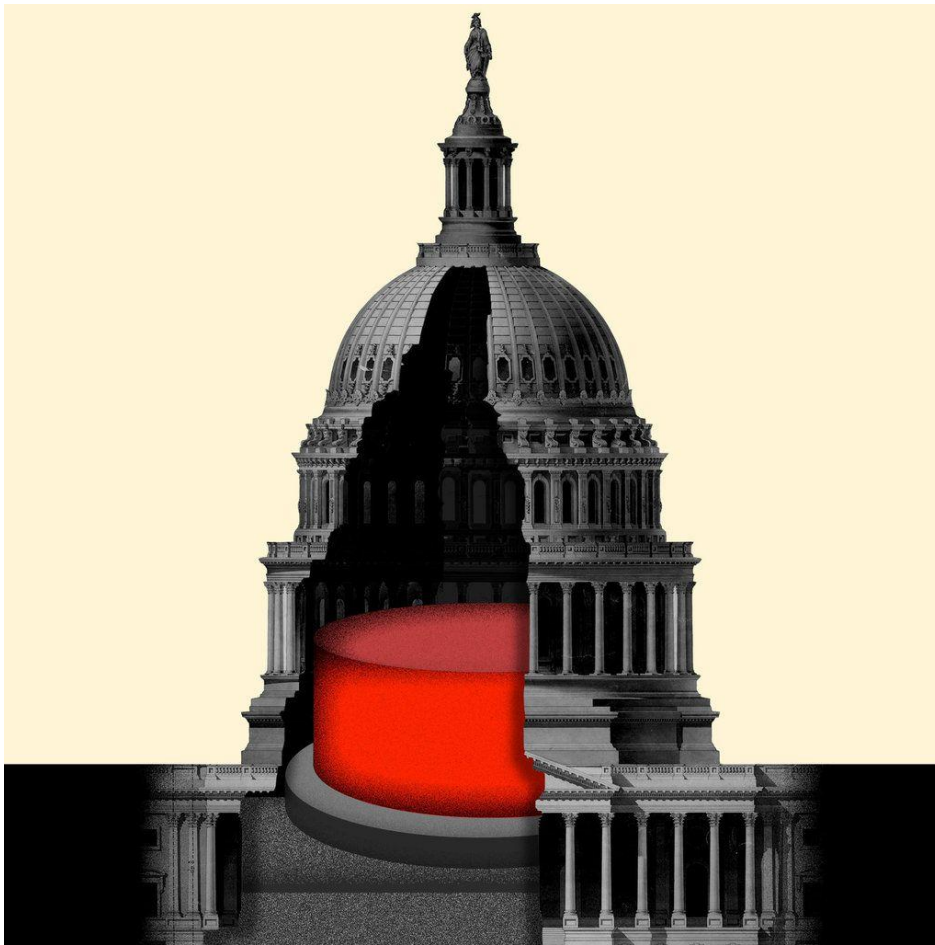
Ishiba's remarks came as part of a recent series of arguments made by LDP lawmakers for enhancing Japan's military power in response to North Korea's nuclear and missile provocations.

Katsuyuki Kawai, an LDP Lower House lawmaker who now serves as a special adviser to the LDP president, Prime Minister Shinzo Abe, on foreign affairs, recently said, "I personally believe that the time has already arrived to seriously consider the possibility of the Self-Defense Forces possessing intermediate-range ballistic missiles and cruise missiles."

This kind of proposal, apparently designed to promote a hard-line security policy agenda by taking advantage of the current crisis, can never contribute to regional stability.

What is really needed is cool-headed debate that is firmly in line with Japan's basic foreign policy tenets, including the three non-nuclear principles and the strictly defensive security policy.

"Should we live in a world where two leaders can stumble into a nuclear holocaust?"



September 12, 2017

Time to Restrict the President's Power to Wage Nuclear War

https://www.nytimes.com/2017/09/12/opinion/time-to-restrict-the-presidents-power-to-wage-nuclear-war.html?emc=edit_th_20170912&nl=todaysh headlines&nid=32427321&r=0

By JEFFREY BADER and JONATHAN D. POLLACKSEPT. 12, 2017

For the first time in a generation, there is widespread anxiety about the possibility of nuclear war, stimulated by the extreme tensions between North Korea and the United States.

Secretary of State Rex Tillerson has advised Americans that they can sleep safely at night, a reassurance that most people probably wish they did not need to hear.

Mr. Tillerson offered his soothing counsel to deflate media hype about recent threats and counterthreats exchanged between Pyongyang and Washington. His words also reflect profound unease about the temperament and judgment of the two leaders who could trigger inadvertent war: President Trump and Kim Jong-un.

Mr. Trump and Mr. Kim appear to believe that bombast serves their domestic needs. Both seem to think that they can dominate and intimidate through the direct use of threats. However, words can easily have consequences that neither leader seems to grasp.

Should we be living in a world where two leaders can stumble into a nuclear holocaust?

North Korea's accelerated pursuit of nuclear weapons clearly requires a much-enhanced containment and deterrence policy by the United States and its allies to prevent Mr. Kim from undertaking ever-riskier options. But what can be done to constrain the actions of an American president whose stability is now openly questioned, even by the Republican chairman of the Senate Foreign Relations Committee, Bob Corker of Tennessee?

To limit the possibilities of an almost unimaginable conflict, there is a need to pursue a long overdue legislative remedy.

Under Article I of the Constitution, only Congress can declare war. Yet during America's numerous wars since World War II, presidents have never sought such authorization. The major reason? Nuclear weapons. There was widespread agreement that the president needed maximum flexibility to respond to a Soviet attack and that involving Congress would cause undue delays in a moment of crisis. As a result, the president has had essentially unchecked power to wage war, including launching a nuclear strike. However, strategic planners understood the risks of enabling a single officer in a silo in North Dakota, perhaps under the most stressful conditions imaginable, to initiate a nuclear strike. The nuclear command-and-control system therefore entailed a "two key" system requiring simultaneous actions by two officers to activate a launch.

The time is long overdue to introduce comparable checks at the highest levels of the executive branch. The strategic circumstances faced by the United States today are altogether different from those during the Cold War. Despite heightened tensions triggered by Russian revanchism in Ukraine and elsewhere in Central and Eastern Europe, the real risk of nuclear war emanates from a rogue actor, and North Korea heads the list. Almost casual presidential invocations of fire and fury have rendered circumstances far more dangerous.

The United States should in no way diminish its ability to respond to a nuclear or conventional attack by North Korea against United States territory or the territory of an ally.

However, we should put in place a system of constraints to ensure that a preventive or pre-emptive nuclear strike by the United States must be evaluated through a careful, deliberative process.

Congress should therefore amend the War Powers Act to cover the possibility of preventive or pre-emptive nuclear strikes. This would ensure that the president could not simply provide the codes to his military aide carrying the nuclear "football" and launch such an attack on his own authority.

Legislation should provide for a small group of officials, possibly including the vice president, the secretary of defense, the chairman of the Joint Chiefs of Staff and the four leaders of the House and Senate, to give unanimous consent to any such nuclear strike. It would ensure that multiple sets of eyes, equipped

with stable emotions and sound brains, would be able to prevent such a nuclear strike undertaken without appropriate deliberation.

This proposal would raise difficult constitutional questions. All presidential administrations have deemed the War Powers Act to be unconstitutional. Giving officers appointed by the president and subject to his direction formal veto power over military decisions could be problematic and precedent setting. If so, confining the veto power to the congressional leadership might be a preferable alternative.

Even during the Cold War, there was great risk in ceding to one person the ability to kill millions in a flash. There is no good reason to enable an American president to retain absolute authority in circumstances completely unlike those faced during the Cold War.

Assurances that nuclear weapons remain an option of absolute last resort, to be considered only after the concurrence of leaders from the executive branch and from the Congress, would also calm the nerves of United States allies deeply troubled by loose talk about the resort to nuclear weapons.

This is not to suggest that President Trump nurses some secret desire to launch a nuclear attack.

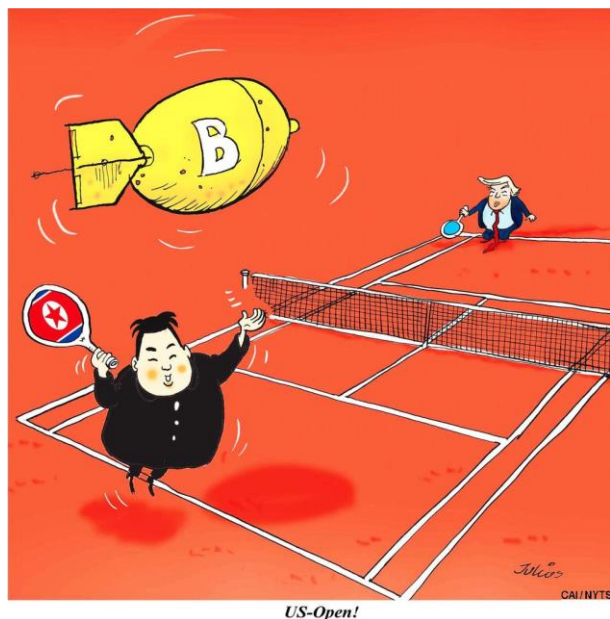
However, the United States needs to act very prudently in dealing with an isolated and uniquely adversarial state. For its part, Congress has the power to prevent hair-trigger responses or impulsive actions that could lead to nuclear war.

Jeffrey Bader was a senior adviser to President Barack Obama on Asia from 2009 to 2011. Jonathan D. Pollack is a senior fellow at the Brookings Institution, specializing in Korea and China, and was a professor at the United States Naval War College.

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A version of this op-ed appears in print on September 12, 2017, on Page A27 of the New York edition with the headline: Stumbling Toward A Nuclear Holocaust. Today's Paper|Subscribe

What nuclear "crisis"?



September 14, 2017

North Korean nuclear ‘crisis’ an illusion

Kim and Trump are putting on a media puppet show for PR purposes

<https://www.japantimes.co.jp/opinion/2017/09/14/commentary/world-commentary/north-korean-nuclear-crisis-illusion/#.WbqTH8ZpGos>

by John Mecklin

Reuters

SANTA BARBARA, CALIFORNIA – Although it has involved disturbing events — ballistic missile launches, nuclear weapons tests, military exercises, inane bombast — the North Korean “crisis” of recent months is largely an invented one.

A year ago, the probability that North Korea would fire a nuclear-tipped missile at the United States was essentially zero; the North did not have the capability to make such an attack. Pyongyang has made technological advances since then. But despite what some analysts believe, others say there is no definitive, publicly available proof that North Korea has a missile with the range to strike the continental U.S., a miniaturized nuclear warhead to mate with it, and the shielding technology to make sure the warhead survives the heat and pressure of re-entry to the atmosphere.

That doesn’t, of course, mean the show is harmless. But even if the North acquires those technical capabilities, the likelihood it might attack the U.S. with a nuclear missile will remain exceedingly low, for one overriding reason: North Korean leader Kim Jong Un is, as former Obama administration arms control director Jon Wolfsthal has explained in authoritative detail, neither crazy nor suicidal. The North Korean leader knows his regime would be erased within hours (more likely minutes) of his use of a nuclear weapon. Roughly 1,590 nuclear warheads deployed on U.S. ballistic missiles and bombers ensure that result. (The North has acquired the fissile material to build only 10 to 20 nuclear warheads, according to the most authoritative public reporting on the subject.)

It is also quite unlikely that the U.S. will make a pre-emptive military strike — conventional or nuclear — on North Korea, because doing so would almost certainly lead to hundreds of thousands of casualties in South Korea, and perhaps many more. Even without recourse to nuclear weapons, the North could fire thousands of rockets and artillery rounds in the early hours of a war, in a barrage of conventional explosives that would, as the North Korean state-run news service has threatened, turn Seoul into a “sea of fire.” Pyongyang also has huge stores of chemical artillery shells and rocket warheads and the capability, therefore, to also turn the South Korean capital into a sea of sarin and VX nerve gas.

In light of the undeniable reality of mutual deterrence, the North Korean “crisis” of 2017 can most accurately be seen as a media puppet show put on by Kim and U.S. President Donald Trump for their own public relations purposes. Nonetheless, it’s a dangerous play. In the current overheated media environment, some piece of international theater by Kim or Trump — undertaken for political effect or negotiating edge or ego gratification — could become so magnified by breathless, 24/7 repetition on cable TV and the internet that it becomes seen as a humiliating national insult. An emotional response to that insult could initiate a spiral of escalation that leads to catastrophe. To put things in more concrete terms: If U.S. forces had shot down the North Korean missile recently fired through Japanese airspace, might Kim, in an act of pique or bravado, have fired another missile, perhaps in the general direction of Guam? Would Trump have then felt compelled to craft a macho response? Etcetera — with a possible end result of mushroom clouds.

The best way to reduce the threat of inadvertent war posed by the invented theatrical crisis in Northeast Asia would be to persuade the prime thespians — Kim and Trump — that the show they have been putting on is unbelievable and unlikely to get either what he wants. But I don't really expect that my views will motivate two world leaders of high (if largely unearned) self-regard to quickly change their policies on matters of life, death and television ratings.

So I propose a next-best approach: Journalists should stop writing and broadcasting about the North Korea situation as if everything had changed and war is very near. North Korea has been seeking a usable nuclear arsenal for years. Its latest underground nuclear test had a higher yield than earlier detonations, producing the explosive power of somewhat more than 100,000 tons of TNT, meaning it was four to five times the size of the bomb dropped on Nagasaki. The larger yield could have come from a fission bomb "boosted" with hydrogen isotopes or a true fusion weapon, commonly known as a hydrogen bomb; experts cannot be sure which, based on the information currently available.

But even if the Sept. 3 test involved a true hydrogen bomb, Sig Hecker — former director of Los Alamos National Laboratory and one of the country's foremost experts on North Korea's nuclear program — has told the magazine I edit, *Bulletin of the Atomic Scientists*, that it wouldn't be "a game changer." If delivered to an American city, any North Korean nuclear bomb — whether based on nuclear fission or fusion, whether its yield is 20 or 100 or 800 kilotons — would produce devastation and the instant death of tens of thousands. That's a horrifying prospect. But again, North Korea's leaders know that to fire a nuclear weapon at the U.S. or its allies would constitute certain national suicide.

Clearly, North Korean nuclear bomb and ballistic missile tests are important events that the international news media must report. But the urgency that world news media are imparting to the "crisis" is, actually, a factor in extending it, thereby creating opportunities for miscalculation and war.

The North Korean situation might begin to devolve into the kind of long slog of difficult diplomacy that leads to an acceptable resolution if more journalists downplayed the Chairman Kim and President Trump Puppet Show and focused on reality: North Korea is a tiny, impoverished country that would be instantly vaporized if it ever launched a serious attack on the U.S., and so the probability of such an attack is vanishingly small. Absent a media environment that encourages a perception of crisis, the likelihood of an American pre-emptive attack is equally small.

Journalists can't make U.S. and North Korean leaders behave responsibly. But the media can help audiences understand that the Korean "crisis" is really a Korean standoff, and that a puppet show full of bluster is a rather pathetic substitute for professional diplomacy.

John Mecklin is a journalist, novelist and editor who specializes in narrative journalism. He is currently editor-in-chief of the Bulletin of the Atomic Scientists.

NRA "too hasty" in giving OK to TEPCO

September 14, 2017

EDITORIAL: NRA too hasty in giving green light to TEPCO to restart reactors

<http://www.asahi.com/ajw/articles/AJ201709140030.html>

Although the Nuclear Regulation Authority has decided to give the green light to Tokyo Electric Power Co. to restart nuclear reactors, we question the fitness of the utility, which is responsible for the accident at the Fukushima No. 1 nuclear power plant, to manage nuclear facilities.

The NRA has been screening TEPCO's application to resume operations of the No. 6 and No. 7 boiling-water reactors at its Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture.

The NRA on Sept. 13 acknowledged with conditions that TEPCO is eligible for operating nuclear plants after examining the company's safety culture and other issues.

The nuclear safety watchdog said it will make TEPCO incorporate a written pledge by TEPCO President Tomoaki Kobayakawa to secure safe operations into its safety code. Kobayakawa promised to put higher priority on safety than on profitability. The NRA made clear it also has the power to order TEPCO to suspend its reactor operations or rescind the utility's license if a serious violation is found.

Establishing an effective system to monitor the company's nuclear power operations to ensure their safety is one thing. Assessing the utility's fitness to operate reactors is another.

Why is the NRA in such a rush to make the decision when it still harbors doubts about TEPCO's eligibility to operate nuclear reactors?

Was the move in any way driven by a desire on the part of Shunichi Tanaka, chairman of the NRA, to settle the issue by the end of his five-year term, which is due to expire soon?

It is hard to deny the impression that the NRA has unnecessarily rushed into the decision, as it is clearly premature.

A corporate safety culture usually deteriorates in a five-stage process--with each marked, respectively, by overconfidence, complacency, disregard, danger and collapse.

TEPCO's safety culture was already collapsed before the 2011 nuclear disaster at the Fukushima No. 1 nuclear power plant, as indicated by a series of scandals involving the company's attempts to cover up safety problems and falsify data.

That's how TEPCO itself summed up the root causes of the catastrophic accident in a report published in 2013.

In an attempt to fix its corporate culture, TEPCO established an oversight committee, which includes independent members and regularly receives reports from the management team.

The utility has also published a somewhat self-congratulatory report on the effectiveness of measures it has taken.

It was revealed only last year, however, that the company's president at the time of the Fukushima accident told employees not to use the term "core meltdown" in describing what was unfolding.

It has also been disclosed that TEPCO had failed to inform the regulator that the earthquake resistance of a key facility at the Kashiwazaki-Kariwa plant was insufficient.

Only last month, it emerged that TEPCO had seriously delayed announcing that falling levels of underground water being pumped up at the Fukushima plant set off an alarm. The NRA bitterly criticized the delay, saying the suspicion that TEPCO was still in the habit of "covering up inconvenient facts and deceiving people" could not be avoided.

Why then, has the NRA concluded there is "no reason" to proclaim that TEPCO is unfit to operate nuclear reactors?

In the aftermath of the Fukushima disaster, many critics, both at home and abroad, pointed out that both the operators and regulators of nuclear plants in Japan focus too much on hardware, such as facilities and equipment.

All operators of nuclear plants in Japan, not just TEPCO, face the challenge of reforming the way they manage their organizations as well as the mind-set among their employees in order to foster and firmly establish a safety culture.

Even the more stringent reactor regulations imposed by the NRA after the triple meltdown in 2011 are not effective enough in this respect.

Evaluating a utility's fitness to operate nuclear plants is a new task for the NRA.

A special task force set up by the body started working on the criteria and procedures for such evaluations in July. The team is expected to produce an interim report on its work by the end of the year.

Here's how the NRA should tackle this challenge. It should first establish effective guidelines for eligibility assessments. Then, it should apply the guidelines to the screening of specific plans to restart reactors to ensure that a solid safety culture underpins the operations of all nuclear reactors.

--The Asahi Shimbun, Sept. 14

Editorial: Can resolve alone qualify TEPCO to operate nuclear reactors?

<https://mainichi.jp/english/articles/20170914/p2a/00m/0na/019000c>

Japan's Nuclear Regulation Authority (NRA) has judged that Tokyo Electric Power Company Holdings Inc. (TEPCO) is qualified, under certain conditions, to operate nuclear reactors.

- **【Related】** Nuclear regulator defers giving safety OK for idle TEPCO reactors
- **【Related】** Nuclear regulator does dizzying U-turn on TEPCO reactor restart plans
- **【Related】** TEPCO's Niigata nuclear plant set to clear screening to restart reactors

The judgment comes in line with the nuclear watchdog's safety screening of the idled No. 6 and 7 reactors at TEPCO's Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture.

Technical screening of the reactors has practically finished, and in the near future the NRA is expected to release a draft of screening documents indicating that the reactors have passed new safety standards implemented in the wake of the Fukushima nuclear disaster.

But when looking closely at the screening process, the foundation for the nuclear watchdog's decision appears flimsy, and we have to say that it lacks persuasiveness.

The NRA's decision to screen TEPCO on its qualifications to operate the reactors was an unusual step not clearly stipulated in the new safety standards. It stems from NRA Chairman Shunichi Tanaka's judgment that TEPCO, having caused the accident at the Fukushima No. 1 Nuclear Power Plant, is different from other power companies. It is understandable that an additional, high-level response is being sought from TEPCO.

In July this year, the NRA called in TEPCO officials including the utility's president Tomoaki Kobayakawa, and Tanaka put pressure on them, telling them, "If TEPCO is unwilling or unable to see through the decommissioning of the Fukushima reactors, it is simply not qualified to operate a nuclear power plant." He requested that TEPCO take the initiative in tackling problems such as the accumulation of tainted water on the grounds of the Fukushima No. 1 nuclear plant.

In response, TEPCO last month submitted a document to the NRA in the name of the president. It stated that the company would "proactively face the parties involved and see through the decommissioning of the reactors," and that it would "deal with decommissioning at the Fukushima plant and safety improvements at the Kashiwazaki-Kariwa plant at the same time." Though the document displayed TEPCO's resolve, it contained no concrete measures on dealing with contaminated water or other such issues.

In spite of this, Tanaka and other officials at the NRA went straight ahead and accepted the document. They took the position that the effectiveness of TEPCO's resolve could be ensured by making the utility express it in nuclear plant safety stipulations, with which operators are obliged to comply. However, there are no clear standards for evaluating the stance with which TEPCO is tackling decommissioning work and safety countermeasures. Even if the company states its subjective resolve in safety regulations, doubts remain about how much of a binding effect that will have on the utility's actual stance.

In screenings to date there have emerged several findings which cast doubt on TEPCO's fitness to operate reactors at the Kashiwazaki-Kariwa plant, including the discovery that the utility did not report to the NRA that the quake resistance of a seismic-isolated building that is supposed to serve as a base for handling accidents was not up to scratch.

Niigata Gov. Ryuichi Yoneyama has indicated that inspection of the disaster at the Fukushima No. 1 plant is a priority issue, and so even if the Kashiwazaki-Kariwa reactors pass screening, there are no immediate prospects of being able to restart them. So why is the NRA in such a hurry to reach a conclusion?

Tanaka's tenure as chairman of the NRA will expire this month. One might well think the NRA is rushing to clear reactivation of the reactors before he steps down. If things keep going the way they are, public trust in the NRA as a government nuclear watchdog will only decline.

What altered NRA's assessment of TEPCO?

September 18, 2017

NRA screening of Tepco's restart plan

https://www.japantimes.co.jp/opinion/2017/09/18/editorials/nra-screening-tepcos-restart-plan/#.Wb_OLMZpGos

The Nuclear Regulation Authority appears to be moving toward approving Tokyo Electric Power Company Holding Inc.'s bid to restart two of the idled reactors at its Kashiwazaki-Kariwa power plant in Niigata Prefecture — the same type of boiling water reactor (BWR) that suffered core meltdowns at its Fukushima No. 1 plant in 2011. Tepco sees the restart of reactors 6 and 7 at the Niigata plant as vital to its financial reconstruction. However, the way the NRA is wrapping up its safety screening of Tepco's plan seems less than convincing.

Even if the NRA gives it nod, it remains uncertain when the plant will be restarted given that Niigata Gov. Ryuichi Yoneyama says it will take "at least three to four more years" before making a judgment on whether to grant local consent to the restart, which he says will require a full review of the 2011 crisis. Instead of rushing to a decision, what's required of the NRA is a screening process that will be accountable to the public.

In a meeting last Wednesday, the NRA held off certifying the safety of the two Kashiwazaki-Kariwa reactors, as it had been widely expected to do, in the face of criticism that it has not sufficiently discussed whether Tepco, responsible for the 2011 disaster, is fit to operate a nuclear plant. It was believed that the NRA wanted to wrap up the screening while Chairman Shunichi Tanaka, who will leave the post this week, was still on board. Still, Tanaka told a news conference that the nuclear watchdog has reached a consensus that Tepco is qualified to run nuclear plants.

Just two months ago, Tanaka, in a meeting that was also attended by Tepco's top management, severely criticized the utility over the way it was approaching the task of cleaning up the mess of Fukushima No. 1, saying that a power company which "lacks the will to take the initiative" in decommissioning the crippled Fukushima plant "does not have the right to restart operations" of a nuclear power plant. While Tanaka urged the Tepco executives to submit a document detailing how the firm intends to dispose of radiation-contaminated water at Fukushima No. 1, the utility's reply delivered in August did not mention any concrete plans for disposing of the contaminated water that has built up there.

During a hearing in late August, however, the utility pledged its resolve to see the decommissioning process through to the end. This has reportedly gained the understanding of the NRA. The nuclear watchdog began wrapping up the screening of Tepco's bid at its meeting on Sept. 6 — in which participants reportedly gave positive comments about its plan, such as that the experience of the Fukushima catastrophe should serve as a plus for the company's operation of its other plants. Another participant was quoted as saying that Tepco's responsibility for the 2011 accident is one thing and its technological capacity to run nuclear plants is another.

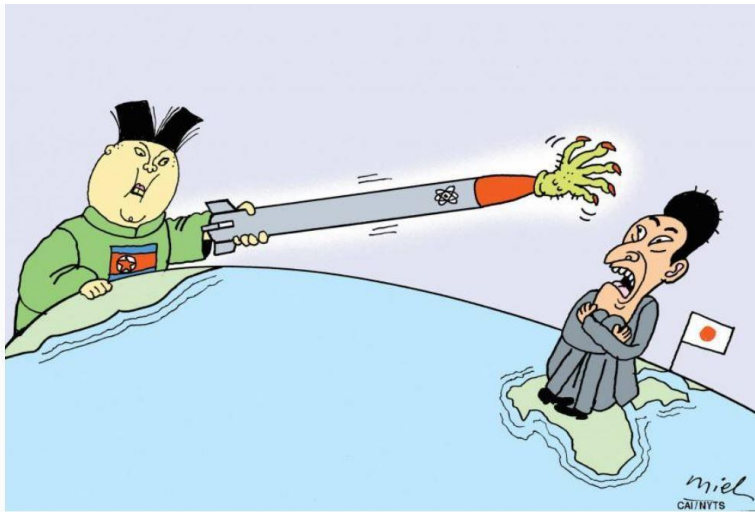
At the last meeting, the NRA reportedly agreed that Tepco is fit to restart the reactors at Kashiwazaki-Kariwa — on condition that the utility state in its rules its determination to implement all new safety measures in running nuclear power plants. It's not clear how the doubts expressed so strongly in July about Tepco's qualifications as a nuclear plant operator have been dispelled by verbal pledges of its "determination" to follow safety rules and by writing them down in its safety rules.

More than six years after the meltdowns, the path to decommissioning Fukushima No. 1 still has a long way to go. Detailed conditions of the melted fuel debris inside the crippled reactors — the removal of which will pose the biggest hurdle to decommissioning the plant — remain unknown.

Just two years after the disaster broke out, Tepco filed for an NRA screening of its plan to reactivate the reactors at Kashiwazaki-Kariwa. Tepco is placing its hopes on resuming operation of the Niigata plant — the world's largest nuclear power station in terms of output capacity — as a key to restoring its financial bottom line, which has been battered by the massive costs of paying for the aftermath of the 2011 catastrophe.

At that time, Tepco said there was no problem with the earthquake resistance of an emergency response center at the Kashiwazaki-Kariwa plant. But even though it later learned that the emergency unit's quake resistance was insufficient, it failed to report this fact to the NRA for three years. It was only in June that the company submitted a revised application. **That alone brings into question Tepco's commitment to safety as a nuclear power plant operator. One wonders what altered the NRA's assessment of Tepco to determine that the utility is fit to run a nuclear plant.**

Nuclear sharing: A terrifying perspective



September 17, 2017

The time for 'nuclear sharing' with Japan is drawing near

Introducing U.S. nuclear weapons will be a necessary evil amid the current security turbulence

<https://www.japantimes.co.jp/opinion/2017/09/17/commentary/japan-commentary/time-nuclear-sharing-japan-drawing-near/#.Wb4xuMZpGos>

by Masahiro Matsumura

OSAKA – With North Korea's substantial nuclear arsenal and improved intercontinental ballistic missile capability, the world has no choice but to tolerate its illegitimate possession of nuclear weapons.

Pyongyang will never give up its nukes, which it considers essential for regime survival. Nor can they be eliminated without a massive pre-emptive attack that would invite catastrophic counterattacks against both South Korea and Japan.

The United Nations Security Council has just passed a resolution to impose additional, more stringent sanctions on North Korea. But these penalties fall short of a full oil embargo and other "super sanctions" that might immediately jeopardize the regime's survival and force Pyongyang to abandon its nuclear weapons. The country is believed to possess not only adequate oil reserves for one year but also limited oil refining capability.

China disapproves of super sanctions. But following the recent series of North Korean provocations, it has assented to additional, severer measures and it may enforce existing measures more stringently. China has long supplied most of the oil and grain needed by North Korea to maintain it as a strategic buffer vis-a-vis the United States and prevent the regime's collapse, which would entail a massive inflow of North Korean refugees. Besides, China itself now faces a significant nuclear threat from North Korea. After all, the effective range of Pyongyang's newly operational nuclear missiles covers northern China, including the capital, Beijing.

Russia doesn't want to cooperate in imposing super-sanctions either. It has supplied substantial gasoline and jet fuel to North Korea, as if to offset China's reduction of these vital commodities in response to U.S. President Donald Trump's demands. Evidently, Russia has become Pyongyang's primary backer while striving to deal with the hostile U.S. establishment that has continued intense offensives centered on the Crimea annexation issue and the "Russiagate" interference in the U.S. presidential election last year. In fact, Russian President Vladimir Putin has made a series of statements against both military options and

super sanctions vis-a-vis North Korea, instead suggesting that de facto nuclear arms control negotiations be pursued with the country.

Pyongyang will take advantage of this U.S.-China-Russia disunity and proceed with its drive to develop nuclear weapons. As a result, Japan will face an existential threat within the next year or two, especially after Pyongyang develops ICBMs that can attack the continental U.S. This means Japan will soon be unable to rely on U.S. extended nuclear deterrence due to significant doubts about Washington's commitment to nuclear retaliation.

Inadequate missile defense

At present, Japan's two-tier missile defense system is hardly adequate. It is designed as a simple theater missile defense that cannot provide a complete shield against North Korea's sizable number of nuclear missiles, particularly now due to the most recent technical leaps in performance. Nudged by the profit-seeking U.S. military-industrial complex, Japan is striving to acquire Aegis Ashore, a ground-based variant of the warship-based system, as a major supplement, but active defense will never solve the essential problem. Only the promise of punishment by nuclear retaliation can deter North Korea.

Thus, when the sense of crisis is heightened, Japan will most probably be driven to go nuclear, leading to self-reliance and strategic independence involving the abrogation of the alliance with the U.S., its sole security guarantor.

Alternatively, after suffering a nuclear attack, Japan would surely terminate the alliance, necessarily opting to be self-reliant and strategically independent by going nuclear. In either way, the U.S. will lose Japan, which is vital in maintaining its global military dominance in light of forward deployment, logistics and other crucial functions.

Japan follows an internally conflicted non-nuclear policy, while simultaneously facing a dilemma. Out of its unique historical experience of the atomic bombings of Hiroshima and Nagasaki, the country is committed to nuclear disarmament while supporting the Non-Proliferation Treaty as a non-nuclear power. As a result, Japan has consistently taken the national policy of no possession, production or introduction of nuclear weapons.

Nonetheless, it relies on U.S. extended nuclear deterrence for national security.

Nuclear sharing

To prevent Japan from becoming a wild card, the U.S. should adopt a policy of "nuclear sharing" with Japan, emulating the concept as it is used in the NATO framework. Member countries without nuclear weapons of their own are included in the planning for the use of nuclear weapons by NATO, in particular providing for the armed forces of these countries to be involved in delivering the weapons in the event of their use.

The U.S. should plan together with Japan during peacetime the use of tactical nuclear weapons, and provide nuclear-armed Tomahawk cruise missiles for delivery by Japan's large fleet of conventional submarines in the event of their use. These missiles should be stored in a U.S. base in Japan during peacetime. The U.S. should control them with a security device to prevent unauthorized arming and detonation.

Nuclear sharing would require Japan to introduce U.S. nuclear weapons on its soil, but enable the U.S. to avoid a direct challenge against Japan's non-nuclear policy by equipping U.S. forces in Japan with the weapons. This is a necessary evil given the current turbulence in the regional security environment. Japan would neither have to possess nor produce nuclear weapons, enabling continued observance of its obligations under the NPT. This approach would reinforce the political base of the pivotal bilateral alliance.

Masahiro Matsumura is a professor of international politics and national security at St. Andrew's University (Momoyama Gakuin Daigaku) in Osaka.

What "Japan" are we talking about?

September 20, 2017

Countries divided over nuclear ban treaty at UN

https://www3.nhk.or.jp/nhkworld/en/news/20170920_23/

Statements by world leaders at the UN General Assembly have shown a deep divide over the Treaty on the Prohibition of Nuclear Weapons.

The UN treaty was adopted in July with the support of 122 countries and territories. A signing ceremony for the treaty is scheduled on Wednesday at the UN Headquarters in New York. UN Secretary-General Antonio Guterres and leaders of more than 40 countries are expected to attend.

But, **opinions of nuclear powers and countries relying on their nuclear umbrella differ from those of non-nuclear states that support the treaty.**

On Tuesday, Costa Rican President Luis Guillermo Solis Rivera referred to the treaty in his speech. Costa Rica chaired the talks on the treaty.

He said the desire of the 122 countries that approved the text of the treaty is the legitimate voice of people who are lovers of peace and of the defense of humanity.

Austria's Foreign Minister Sebastian Kurz also expressed his expectation that the treaty will come into effect soon.

US President Donald Trump said the US will spend almost 700 billion dollars on military and defense, suggesting that the US will modernize its military arsenal including nuclear weapons.

Japan under the US nuclear umbrella has declined to attend the signing ceremony. Foreign Press Secretary Norio Maruyama stressed Japan's position that nuclear disarmament should be promoted in phases. He said Japan does not believe the treaty is the most effective way to abolish nuclear weapons.

New lawsuit for TEPCO (2)

August 25, 2017

US sailors, residents seek damages over Fukushima radiation

https://mainichi.jp/english/articles/20170825/p2g/00m/0dm/001000c#cxrecs_s

TOKYO (Kyodo) -- About 150 U.S. nationals including sailors have filed a damages suit against Tokyo Electric Power Company Holdings Inc. seeking \$5 billion in compensation for radiation exposure following the 2011 nuclear crisis in northeastern Japan, the company said Thursday.

The lawsuit was filed at a federal court in California by U.S.-based residents including personnel involved in the U.S. forces' Operation Tomodachi relief efforts following the massive earthquake and tsunami on March 11, 2011, that crippled the Fukushima Daiichi nuclear plant operated by Tepco.

The plaintiffs are seeking the establishment by Tepco and a U.S. company of a compensation fund to cover medical treatment and other related costs, the utility said without naming the company involved.

In Operation Tomodachi, which began two days after the earthquake and tsunami, the aircraft carrier Ronald Reagan and other U.S. military resources and personnel were employed to deliver supplies and undertake relief efforts.

After tsunami waves hit the six-reactor plant and flooded power supply facilities, reactor cooling systems were crippled and the Nos. 1-3 units suffered fuel meltdowns, resulting in the world's worst nuclear disaster since the 1986 Chernobyl crisis.

Tepco said the suit was filed on Aug. 18 local time.

The utility said it has not yet received documents on the lawsuit and will examine the details and respond appropriately.

The plaintiffs claim the nuclear disaster was caused by the improper design and management of the plant by Tepco. They are also seeking compensation for physical and mental damage suffered as a result of the disaster.

The plaintiffs are also seeking to combine their lawsuit with another filed in 2012 with a U.S. federal court in San Diego by a group of former U.S. sailors, who are suing Tepco for health problems due to radiation exposure during the relief operation.

The sailors argue they were exposed to radiation and suffered injury because Tepco misled them about the scale of the nuclear disaster.

The 2012 case was the first lawsuit against the utility filed with an overseas court in connection with its handling of the nuclear crisis.

3 members of gang arrested for providing nuclear workers illicitly

September 27, 2017

Nuclear workers

3 nabbed over alleged illicit job mediation for Fukushima cleanup workers

<https://mainichi.jp/english/articles/20170927/p2a/00m/0na/015000c>

Police on Sept. 27 arrested three people, including a high-ranking member of a gang affiliated with the Yamaguchi-gumi crime syndicate, on suspicion of illicitly introducing workers to other businesses to engage in Fukushima decontamination work.

The three suspects, including a gang member in his 40s, were arrested on suspicion of violating the Employment Security Act by mediating in paid work without permission. Police believe that **the service charges the suspects received were being used to fund gang activities.**

Investigators said that the three are **suspected of having introduced decontamination workers to other businesses since 2014 and charging introduction fees, despite lacking permission from the Minister of Health, Labor and Welfare that is required by law.**

A consulting company based in Tokyo's Nerima Ward that was effectively run by the suspects' gang **dispatched workers to decontamination zones through other businesses.** The workers reportedly engaged in decontamination work in Fukushima Prefecture.

In January 2013, Yamagata Prefectural Police arrested a high-ranking member of a gang affiliated with the Sumiyoshi-kai crime syndicate on suspicion of violating the worker dispatch law in connection with the dispatch of workers engaging in Fukushima-related decontamination work.

EU to relax import restrictions on Fukushima rice

EU to lift import curbs on rice from Fukushima, more deals likely

<http://www.asahi.com/ajw/articles/AJ201709270035.html>

THE ASAHI SHIMBUN

September 27, 2017 at 15:45 JST

The European Commission is set to relax import restrictions on rice from Fukushima Prefecture that were imposed after the 2011 nuclear disaster, sources said.

The import curbs could be eased as early as this year and prompt other countries, including major markets like China, to follow suit, the sources added.

In addition to rice from Fukushima Prefecture, the EU is expected to remove restrictions on some seafood products from Iwate, Miyagi and other prefectures.

All restrictions on products from Akita Prefecture will likely also be lifted, thereby abolishing all curbs on rice grown in Japan.

The United States on Sept. 22 decided to allow imports of milk and dairy products from Fukushima, Iwate, Miyagi, Tochigi and Gunma prefectures without inspection certificates stating they are free of radioactive materials.

The EU move follows a general agreement on an economic partnership in July, during which EU officials informed Japan of plans to relax import restrictions on agricultural products. The two sides have been discussing the issue since then.

(This article was written by Naoki Tsuzaka in Brussels and Tetsushi Yamamura in Tokyo.)

Chiba court:TEPCO - but not State - ordered to pay compensation

September 22, 2017

Tepco again ordered to pay damages in nuclear disaster, but not state

<https://mainichi.jp/english/articles/20170922/p2g/00m/0dm/081000c>

CHIBA, Japan (Kyodo) -- A Japanese court ordered Tokyo Electric Power Company Holdings Inc. on Friday to pay damages over the nuclear disaster at its Fukushima Daiichi nuclear power plant following a deadly 2011 earthquake and tsunami, but dismissed claims against the state.

The Chiba District Court ruling follows a Maebashi District Court decision in March that found negligence on the part of both Tepco and the government played a part in the worst nuclear catastrophe since Chernobyl and ordered them to pay damages.

Friday's ruling stemmed from a lawsuit filed by 45 people who were forced to flee Fukushima Prefecture to Chiba Prefecture near Tokyo as reactors that lost cooling functions caused meltdowns and spewed massive amounts of radioactive materials into the air.

The Chiba court awarded a total of 376 million yen (\$3.35 million) to 42 of them, including all four who voluntarily evacuated. In the suit filed in March 2013, the plaintiffs were collectively seeking around 2.8 billion yen in damages from the government and plant operator.

The focal point of the Chiba case was whether the government and Tepco were able to foresee the huge tsunami that hit the seaside plant on March 11, 2011, and take preventive measures beforehand, with conflicting claims made by the parties regarding the government's long-term earthquake assessment, which was made public in 2002.

The assessment, made by the government's earthquake research promotion unit, predicted a 20 percent chance of a magnitude-8-level tsunami-triggering earthquake occurring along the Japan Trench in the Pacific Ocean within 30 years, including the area off Fukushima.

Based on the assessment, the plaintiffs argued that, with the plant standing on ground roughly 10 meters above sea level, a tsunami higher than the ground striking the plant could have been predicted.

They then claimed that the disaster was therefore preventable if emergency power generation equipment had been placed on higher ground, and that the government should have made Tepco take such measures by exercising its regulatory powers.

The government and Tepco, for their part, claimed the assessment was not established knowledge, and that even if they had foreseen a tsunami higher than the site of the plant and taken measures against it, they cannot be held liable as the actual tsunami was much higher at around 15.5 meters.

The government also argued that it obtained regulatory powers to force Tepco to take anti-flooding measures only after a legislative change following the disaster.

In Friday's ruling, the court found the government not liable, saying that while the government indeed has such powers, not exercising them was not too unreasonable.

While ordering Tepco to pay damages, the court determined that the plant operator did not commit serious negligence that would have required a higher compensation amount, saying it did not totally leave anti-tsunami measures unaddressed.

The plaintiffs' lawyers criticized the ruling as unfair, in that the court did not recognize the state's liability. But they still positively rated the court's acknowledgement of the loss of the plaintiffs' hometown, jobs and personal relationships, and compensation for such a loss.

In March, the Maebashi District Court in Gunma Prefecture recognized negligence on the part not just of Tepco but also the government, saying they were able to foresee a tsunami high enough to inundate the plant.

It was the first such ruling issued among around 30 suits of the same kind and the first to rule in favor of plaintiffs.

The Maebashi court acknowledged that the government had regulatory authority over Tepco even before the accident, noting that "failing to exercise it is strikingly irrational and illegal."

The court awarded to 62 of 137 plaintiffs a total of 38.55 million yen in damages, far less than the 1.5 billion yen sought in total. Many of the plaintiffs have appealed the district court decision.

In the Chiba suit, the 45 plaintiffs, including four who evacuated voluntarily, sought 20 million yen each for compensation for their evacuation and the loss of their hometown, jobs and personal relationships because their lives were uprooted.

The magnitude-9.0 earthquake and ensuing tsunami struck northeastern Japan on March 11, 2011, causing multiple meltdowns and hydrogen blasts at the nuclear power plant. Around 55,000 people remained evacuated both within and outside Fukushima Prefecture as of the end of August in the wake of the disaster.

TEPCO ordered to pay evacuees of Fukushima nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201709220052.html>

By NOBUYUKI TAKIGUCHI/ Staff Writer

CHIBA--A district court here on Sept. 22 ordered Tokyo Electric Power Co. to pay 376 million yen (\$3.3 million) in compensation to evacuees of the Fukushima nuclear disaster but absolved the central government of responsibility.

Forty-five people in 18 households who evacuated to Chiba Prefecture following the 2011 meltdowns at the Fukushima No. 1 nuclear plant sought a total of about 2.8 billion yen from TEPCO and the government. About 30 similar lawsuits involving 12,000 plaintiffs have been filed at district courts around Japan.

The Chiba District Court ruling was the second so far.

In March, the Maebashi District Court in Gunma Prefecture found both TEPCO and the government responsible for the nuclear disaster and ordered compensation totaling 38.55 million yen for 62 plaintiffs. The main point of the lawsuit in the Chiba District Court was whether TEPCO and the government could have foreseen a towering tsunami hitting the Fukushima No. 1 nuclear plant and taken measures to prevent the disaster.

The plaintiffs emphasized a long-term appraisal released by the central government in 2002, which estimated a 20-percent possibility of a magnitude-8 level earthquake occurring between the coast off the Sanriku region in the Tohoku region to the coast off the Boso Peninsula of Chiba Prefecture within the next 30 years.

The plaintiffs argued that this appraisal shows it was possible to forecast a tsunami off the coast from the Fukushima No. 1 nuclear plant, and that measures could have been taken even as late as 2006 to prevent the disaster.

For the first time in a court case involving compensation related to the Fukushima disaster, a seismologist provided testimony on behalf of the plaintiffs.

Kunihiko Shimazaki, a professor emeritus at the University of Tokyo, once served as a deputy chairman of the Nuclear Regulation Authority. He was also in charge of compiling the 2002 long-term appraisal for the government.

"The height of a likely tsunami could have been known if it was calculated based on that appraisal," Shimazaki said in court. "Even if a specific forecast could not be made, some sort of countermeasure could have been taken."

The defendants argued that the long-term appraisal did not provide a specific basis for predicting a tsunami and only pointed to the fact that a magnitude-8 level earthquake occurring could not be ruled out.

Faulty equipment may have masked leaks

September 29, 2017

Fukushima plant may have leaked radioactive water

https://www3.nhk.or.jp/nhkworld/en/news/20170929_19/

The operator of the Fukushima Daiichi nuclear plant says the groundwater level fell below the level of contaminated water inside the No.1 reactor building **in May**. This means that radioactive water may have leaked from the building.

Officials with the Tokyo Electric Power Company say there were errors in the settings of 6 indicators installed since April to monitor the groundwater levels around the No.1 to No.4 reactor buildings. They say **the actual levels were about 70 centimeters lower than the readings taken with the equipment.**

Contaminated water could leak out if groundwater levels are lower than the level of contaminated water inside a reactor building.

The officials say **the groundwater level of a well outside the No.1 reactor building was up to 2 centimeters lower than the contaminated water level, and this occurred at least 8 times between May 17th and the 21st.**

They say they cannot tell how long this situation lasted, and are continuing their investigation.

The utility says there are no reports of any irregularities in the density of radioactive substances in the groundwater around the reactor buildings.

Faulty equipment (2)

September 29, 2017

Botched gauge settings might have contaminated Fukushima groundwater from April onward: Tepco

<https://www.japantimes.co.jp/news/2017/09/29/national/radioactive-water-may-leaking-fukushima-reactor-buildings-since-april-tepco/#.Wc5w9sZpGos>

Jiji, Kyodo

The discovery of falsely configured monitoring equipment at the stricken Fukushima No. 1 nuclear power plant means the groundwater flowing underneath it might have gotten contaminated **from April onward**, Tokyo Electric said Friday.

The utility said incorrect gauge settings were used to measure groundwater levels in six of the wells near reactors 1 and 4. This resulted in groundwater readings about 70 cm higher than reality, which means **the beleaguered power utility has been mismanaging the groundwater there for months.**

To prevent tainted water from leaking from the plant, Tokyo Electric Power Company Holdings Inc. installed water gauges so it could keep the groundwater levels in the wells a meter higher than the contaminated water in the buildings.

Tepco adjusts the amount of water in wells called subdrains around the buildings to keep the groundwater higher than the tainted water inside them, which prevents it from flowing out. If the groundwater levels sink below the level of the radioactive water, it might leak out.

On Friday, Tepco said the estimated groundwater level in one of the six subdrain wells close to reactor 1 fell below the level in the reactor building at least eight times during the five-day period to May 21 because the gauges were set incorrectly.

Groundwater levels were 2 mm to 19 mm lower than the level in the buildings, Tepco said, adding that it does not know precisely how long each of these problematic situations lasted because water level data is collected by the hour.

Tepco said groundwater levels in five other wells affected by the incorrect settings did not fall below the levels in the nearby reactor buildings.

All six are in the area surrounded by an underground ice wall designed to prevent groundwater leakage. According to Tepco, the incorrect settings date as far back as April 19. The earliest error affected the gauge in a well where groundwater fell to hazardous levels.

In the world's worst nuclear disaster since Chernobyl, reactors 1, 2 and 3 at the plant experienced core meltdowns and reactors 1, 3 and 4 were severely damaged by hydrogen explosions following a massive offshore earthquake that spawned large tsunami in March 2011.

How long does it take to revise a (safety) quiz?

<image: https://img.over-blog-kiwi.com/1/22/53/68/20170930/ob_1a9384_safety-qyquiz.JPG>
September 30, 2017

No joke: Despite the evidence, nuclear power declared safe

<http://www.asahi.com/ajw/articles/AJ201709300035.html>

By CHIAKI OGIHARA/ Staff Writer

A facility in Ikata uses a touch-panel screen to inform visitors about nuclear power plant safety using a quiz format. (Video footage by Chiaki Ogihara)

A touch-panel screen at a facility in Ikata explains that the nuclear power plant in the town was built to withstand strong earthquakes. (Chiaki Ogihara)

A public relations facility here that was set up to publicize the safety of the Ikata nuclear power plant operated by Shikoku Electric Power Co. **still insists that nuclear plants can withstand a tsunami of any height.**

Like the Fukushima No. 1 nuclear power plant that went into triple meltdown, the Ikata facility faces the coast. A magnitude-9.0 earthquake on March 11, 2011, triggered tsunami that put the Fukushima facility out of action.

More than six years after that catastrophic event, the Ehime prefectural government is finally moving to revise the information designed to ease fears about a nuclear accident.

The contents on display will be updated before the end of the fiscal year because, as one prefectural government official put it, "Some of the information does not square with the current situation."

The facility is located in the Minatoura district of Ikata about four kilometers east of the Ikata nuclear plant. It was established in 1982 by Ehime prefectural authorities to remove concerns the public may have about nuclear power generation.

It is operated by an organization that survives on funding from Shikoku Electric, the Ehime prefectural government and the Ikata town government.

In the last fiscal year, the facility had 1,761 visitors, including elementary school students who live nearby. Near the entrance to the facility is a touch-panel screen where visitors can learn about nuclear power plants in a quiz format.

One question asks, "What would happen to a nuclear power plant if a large earthquake should strike?" The three alternatives to choose from are: 1) Continue to generate power; 2) The reactor automatically stops to prevent any form of accident; and 3) It would be destroyed if a large earthquake struck. The second choice is considered the correct answer.

The monitor also offers this reassurance: **"(The nuclear plant) is a sturdy building that would not budge an inch in an earthquake, typhoon or tsunami."**

Another entry states that "it was designed with the largest possible quake in mind."

Another question asks, "Would a nuclear power plant explode like a nuclear bomb?" Again, there are three choices: 1) It would explode if used in a wrong way; 2) It would never explode; and 3) Nuclear reactors might explode once it ages. The correct answer is again the second choice.

In fact, after the Great East Japan Earthquake and tsunami of March 2011, reactors at the Fukushima No. 1 plant were severely damaged by hydrogen explosions caused by core meltdowns after cooling functions were lost when power to the plant was lost.

About a year ago, facility operators have attached a sign to the touch-panel screen that says, **"We are in the process of preparing a revision because some of the wording differs from the current situation."**

However, **no explanation is offered to show what sections differ from reality.**

A prefectural government official in charge of nuclear power safety measures said, "There is some accurate information so we decided it was preferable that some of it was viewed."

But, the official added that the display would be revised along with improvements in other equipment. The cost of about 500,000 yen (\$4,400) would be paid for from tax subsidies obtained through laws covering power generation.

After the Fukushima nuclear accident, a new display was added to show the safety measures being taken at the Ikata plant. There is also a video shown at the facility which explains there has been no noticeable spike in cancer rates or hereditary illness caused by radiation levels under 100 millisieverts.

"Remove the burden and pressure " (for utilities)

25.09.2017_No191 / News in Brief

<http://www.nucnet.org/all-the-news/2017/09/25/japan-s-regulator-to-reduce-burden-on-utilities-seeking-operating-extensions>

Japan's Regulator To 'Reduce Burden' On Utilities Seeking Operating Extensions

Plant Operation

25 Sep (NucNet): Japan's nuclear regulator is to "remove the burden and pressure" on power utilities by extending the period during which reactor operators can apply for lifetime extensions for ageing units.

The Japan Atomic Industrial Forum (Jaif) said on 25 September 2017 that the Nuclear Regulatory Association will change the three-month application period, which coincides with a reactor's final three months of operation in its 38th year.

Ageing reactors in Japan are defined as those approaching 40 years of commercial service.

New regulations will replace the existing three-month window by moving it forward to the beginning of a reactor's 35th year of operation, Jaif said. The operational lifetime of a nuclear power plant in Japan is restricted in principle to 40 years. To extend that lifetime, separate examinations by the NRA are required for extending and restarting units. If a unit clears the extension examination, its operating lifetime can be extended for up to another 20 years, on a one-off basis. **Only three nuclear plants in Japan have passed life extension examinations for ageing units. They are Mihama-3, Takahama-1 and Takahama-2, all owned and operated by the Kansai Electric Power Company in Fukui Prefecture, in western Japan.** Jaif said the burden placed on those working on extensions for ageing units has become an issue in Japan since the suicide of a Kansai Electric employee in charge of examinations for the two Takahama reactors. The suicide was said to be work-related, according to Jaif.

Nuclear plant operators and the ruling Liberal Democratic Party have been seeking revisions to the timeframe to reduce the burden on operators, including extensive paperwork, Jaif said.

Delays and challenges galore

September 28, 2017

Fukushima's decommissioning delays, challenges and unknowns remain roadblocks to cleanup

<http://www.beyondnuclear.org/japan/2017/9/28/fukushimas-decommissioning-delays-challenges-and-unknowns-re.html>

Six and a half years after the Fukushima Daiichi triple meltdown, Japan's government, the nuclear regulator and Tokyo Electric Power Company's (TEPCO) most rudimentary plan of attack for recovery from radioactive catastrophe is delayed again. The first steps of decommissioning cannot legitimately begin until undamaged but highly radioactive "spent" fuel assemblies are removed from vulnerable reactor storage ponds, sufficiently cooled and re-contained in qualified dry storage casks. Then, there are the three melted fuel cores that still must be located, retrieved and somehow re-contained. Where all of the massive radioactive contamination will go is a mystery. In fact, there are an alarming number of challenges, continuing delays and unknowns that remain before securing the destroyed nuclear power station site and halting the ongoing release of radioactivity to the land, water and air.

Among the most immediate concerns is the management of 1007 highly radioactive and thermally hot irradiated nuclear fuel assemblies still in the two cooling pools perched atop the destroyed Units 1 and 2 outside of any containment structure. Each of the site's six-units has an elevated nuclear waste storage pond. The site has a large common pool located near Unit 4. The government recently admitted that previously unknown, possibly undisclosed, damage in these irradiated fuel storage ponds and radioactive contamination has again delayed the plan to move the dangerous fuel assemblies by at least another three years, now 2023. Unit 3 remains on schedule in 2018 to begin the two-year transfer of 514 irradiated fuel

assemblies from its rooftop storage pool to a jam-packed common onsite pool located at ground level. This common pool and its massive radioactive inventory requires reliable cooling power. Unit 4 completed a three-year project to transfer its irradiated fuel into the common pool in 2014. The common pool now has 6,726 irradiated fuel assemblies with a maximum design capacity of 6,840. As this common pool is already densely packed, it is ever more critical that Japan expedite the transfer of the sufficiently cooled irradiated nuclear fuel into qualified, individualized dry storage casks that can passively cool the hot nuclear waste without the need for water and electrical power. Currently, only 1,412 irradiated assemblies have been secured in onsite dry cask storage. These dry casks further need to be hardened against another natural disaster and possible terrorism.

The recurring delays at securing the irradiated fuel currently in wet pool storage (individual units to the common pool) and then into scientifically-qualified and hardened dry cask storage systems raises concern for public health, safety and the environment given the prospect of another large nearby earthquake causing a loss of cooling with the risk of a nuclear waste fire and radioactive releases. A 6.9 magnitude offshore earthquake on November 21, 2016 caused a temporary loss of cooling to wet storage systems at Fukushima Daiichi. Significant earthquakes of 6.0 to 6.9 magnitude occur in Japan on average 17 times per year, roughly one-tenth of all large earthquakes in the world. More severe earthquakes must be anticipated. The loss of cooling power and water to some or all of the more than 11,577 hot nuclear waste assemblies onsite outside of containment remains a significant public health, safety and environmental concern.

Japan is still technologically conceptualizing the “most challenging part” of Fukushima Daiichi’s decommissioning and the recovery of three missing melted reactor cores if and when they can be located. The unprecedented operation has now been delayed until 2019. A viable technology for scooping up melted nuclear fuel does not yet exist. Re-containment and removal of the melted fuel cores is key to addressing the ongoing massive buildup of radioactive water now estimated at 800,000 tons that is being stored in growing onsite tank farms. Groundwater flowing down into the reactor wreckage must be constantly pumped out, partially filtered of radioactivity and stored onsite in the large tanks. The tank farms themselves represent an additional environmental threat in the event of another severe earthquake that could rupture the structures with a radioactive flood into the ocean.

New chairman for NRA. What about Fukushima's lessons?

September 25, 2017

Editorial: Remembering Fukushima's lessons as NRA ushers in new chairman

<https://mainichi.jp/english/articles/20170925/p2a/00m/0na/015000c>

Toyoshi Fuketa, the acting chairman of Japan's Nuclear Regulation Authority (NRA), which was set up following the failure to prevent the meltdowns at the Fukushima No. 1 Nuclear Power Plant operated by Tokyo Electric Power Co. (TEPCO), has become the body's new chairman.

Five years have passed since the NRA was established, but with many people still opposed to the reactivation of Japan's idled nuclear reactors, it would be difficult to say public faith in the government regulation of nuclear power has been restored.

In a news conference to mark the assumption of his new position, Fuketa stated, "I will do my best, with continued sentiment toward Fukushima." **We hope that the new chairman will work on strengthening the NRA's role as a nuclear regulator, without forgetting those words.**

Under former Chairman Shunichi Tanaka, the NRA set new safety standards for nuclear power plants, strengthening measures to handle earthquakes and tsunamis, and as a rule opened its discussions to the public. This certainly increased transparency at the NRA and helped eliminate outside interference.

However, merely opening up discussion and information to the public is insufficient. Unless the NRA can explain the reasons for its decisions in ways that are easy for the public to understand, the body will not be able to win their trust. Its screening of the No. 6 and 7 reactors at TEPCO's Kashiwazaki-Kariwa Nuclear Power Plant is a prime example.

TEPCO's president expressed his resolve to "make safety a priority" -- and the NRA made the utility stipulate this in its own safety regulations for the plant. If TEPCO violates this pledge, then the NRA can order suspension of the reactors. Yet the NRA has not explained how it will gauge TEPCO's resolve.

The nuclear watchdog has five commissioners, but **no seismologists at present.** It is no easy task to cover the whole sphere of regulatory administration with limited personnel. Establishment of a system to adeptly incorporate the claims and views of external experts is an issue that should be addressed in the future.

During screening of the Kashiwazaki-Kariwa plant this month, Fuketa stated, "It's hard to think that the accident at the Fukushima No. 1 nuclear plant could have been prevented had its operator been different."

And in a news conference before former Osaka University vice president Shinsuke Yamanaka took on his role as an NRA commissioner, Yamanaka made comments critical of Japan's rule that nuclear reactors must be decommissioned after 40 years in principle.

Accidents can happen even if countermeasures are taken. That's the lesson we have learned from the Fukushima crisis. But hearing the words of these two NRA figures, many members of the public probably felt that lesson was fading.

In a news conference to mark his departure from his position as NRA chairman, Tanaka called for nuclear power to be discussed "in depth" in the Diet. One can perceive the view that a passing grade under NRA screening is not an official endorsement for restarting nuclear power plants.

Will Japan continue to use risk-laden nuclear power plants? There is a need to discuss this question, separate from the strengthening of regulatory administration.

NHK video

September 29, 2017

Preparing for Worst Case Scenario

<https://www3.nhk.or.jp/nhkworld/en/news/videos/20170929164808246/>

Could the Chiba ruling be a setback on the Maebashi ruling?

September 30, 2017

Damages for the nuclear disaster

<https://www.japantimes.co.jp/opinion/2017/09/30/editorials/damages-nuclear-disaster/#.WdEgCcZpGos>

Awarding damages to people who fled their homes following the March 2011 Fukushima nuclear disaster, the Chiba District Court ruled late last month that the plaintiffs are entitled to compensation for the loss of their hometowns in the catastrophe — the first ruling of its kind.

That should be good news for people who had to evacuate their hometowns in the nuclear fiasco. The Chiba court decision was only the second ruling to be handed down in a series of nearly 30 damages suits filed with 20 courts across the nation, involving more than 12,000 plaintiffs, against Tokyo Electric Power Holdings Co. and the government.

However, the ruling marked a setback from another decision handed down by the Maebashi District Court in March — in that it spared the national government of its responsibility for damages, saying it was not guilty of serious negligence.

The Chiba suit had been filed by 45 people who evacuated from Fukushima Prefecture to Ibaraki Prefecture, demanding a total of ¥2.8 billion in damages for their plight. The court awarded a combined ¥376 million to 42 people, including four who evacuated voluntarily. The court determined that damages paid for the plaintiffs' psychological suffering are not sufficient to cover the loss of the foundation of their lives, such as their hometown communities, which helped them establish and develop their individuality. It thus awarded compensation for the evacuees' loss of their hometowns — beyond the scope of damages being paid by Tepco to evacuees in general in accordance with government-set standards.

The focal point in the series of lawsuits is whether the government and Tepco were able to foresee the massive tsunami that hit the Fukushima No. 1 nuclear power plant on March 11, 2011 — in the Great East Japan Earthquake — and caused core meltdowns in three of its reactors. The Chiba court determined that on the basis of long-term earthquake assessments released in 2002 by the government's quake research unit, the government and Tepco should have been able — by 2006 at the latest — to foresee that a large tsunami higher than the plant site, some 10 meters above sea level, would strike the plant.

What's hard to swallow is the court's subsequent logic. The ruling acknowledged that the government had the regulatory power to order Tepco to take action to prevent loss of the power supply to the reactors in case it was flooded by a tsunami, but said its failure to exercise that authority was not "extremely irrational" and did not constitute a violation of the law. Since the government and Tepco had only limited funding and human resources, it was impossible for them to take steps to cope with all the risks, the court said, adding that even if they had taken such measures, it may have been impossible to prevent the disaster given the size of the tsunami that actually hit the plant.

As for Tepco's responsibility, the court said that since the company was planning to take necessary measures on the basis of an experts' tsunami risk assessment, which was due out in 2012, Tepco cannot be blamed for entirely ignoring the need for anti-tsunami action. The ruling thus concluded that Tepco did not commit such serious negligence as to require a significant increase in damages given to the plaintiffs. In its March ruling, the Maebashi District Court said the government's failure to exercise its regulatory power was irrational because it was clear that Tepco would not voluntarily take necessary steps — and determined that the government could have prevented the disaster. The Maebashi ruling said that Tepco, while it should have given priority to safety at the nuclear plant in weighing its anti-tsunami measures, instead put economic considerations first and thus deserves strong censure. It pointed out that the company could have easily prevented the catastrophe by moving emergency power sources to a higher location. **The Chiba court decision could mislead the government and power companies to think that they would be allowed to delay measures to ensure safety of nuclear power plants out of financial considerations.**

The plaintiffs in the Maebashi case have appealed the ruling on the grounds that the damages awarded — ¥38.55 million for 62 of the 137 plaintiffs — were too small. Those in the Chiba case are also expected to appeal to a higher court. The whole series of pending lawsuits will likely take a long time before they're concluded. The plaintiffs are commonly unhappy about the level of compensation provided under the government-set standards. The Chiba court ruling recognizes that the damages already provided do not fully cover the hardships of the evacuees. The government should not wait for court decisions on all the suits to consider reviewing its damages standard and expand support for the evacuees.

Lawsuit filed against TEPCO

Dossier 3

October 4, 2017

TEPCO sued over dialysis patient's death caused by nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201710040036.html>

By RYOTA GOTO/ Staff Writer

The daughter of an 88-year-old man with kidney failure who died three weeks after the 2011 Fukushima nuclear disaster due to disrupted access to dialysis treatment is suing Tokyo Electric Power Co. for 31 million yen (\$276,000).

In the first case of its kind, Emiko Endo, of Hirono, Fukushima Prefecture, argues that her father, Makoto Endo, died primarily because he could not receive sufficient dialysis treatment in the aftermath of the nuclear disaster.

The suit was filed at the Tokyo District Court on Oct. 3.

"Right before his death, my father appealed to me that he wanted to return home even by walking along the rail track and die at home," Endo, 69, said at a news conference held the same day.

Makoto, also a resident of Hirono, began receiving dialysis around 1998, according to the written complaint.

His routine had been to visit a hospital in Tomioka, a nearby town, three times a week to undergo dialysis. The triple meltdown at the TEPCO-operated Fukushima No. 1 nuclear power plant disrupted that schedule.

Makoto was evacuated to Tokyo a week after the crisis unfolded on March 11, 2011. He died April 1 at a Tokyo hospital after his condition deteriorated following several changes in the venue where he was receiving dialysis.

The Hirono town government has recognized his death as related to the nuclear disaster.

TEPCO would only accept that the nuclear accident was 50 percent responsible for Makoto's death and paid Endo about 7.8 million yen in compensation. The sum was determined in light of the criteria used to pay a holder of mandatory car insurance in the event of a fatal road accident.

Endo demanded more, but TEPCO refused. Their negotiations broke down late last year.

A lawyer representing the plaintiff said the lawsuit is the first to involve a dialysis patient whose death was recognized as being related to the nuclear disaster.

TEPCO said it will respond sincerely after studying the complaint and hearing Endo's argument.

October 3, 2017

Lawsuit filed over kidney disease patient's death blamed on nuclear accident

<https://www.japantimes.co.jp/news/2017/10/03/national/crime-legal/lawsuit-filed-kidney-disease-patients-death-blamed-nuclear-accident/#.WdSFIsZpGos>

Jiji

The daughter of a man who died of kidney disease after the March 2011 meltdowns at the Fukushima No. 1 nuclear power plant filed a lawsuit Tuesday seeking ¥31 million in damages from Tokyo Electric Power Company Holdings Inc.

The 69-year-old female plaintiff claims that the accident prevented her 88-year-old father, a resident of Hirono, Fukushima Prefecture, from getting proper treatment for his disease.

"My father would have lived longer without the accident," the daughter, Emiko Endo, told a news conference.

The father, Makoto, was forced to evacuate to Tokyo from his hospital in the Fukushima city of Iwaki so he could continue his dialysis treatments, according to her complaint filed with the Tokyo District Court.

He died in April 2011 after his health condition deteriorated.

Tepco said it will respond to the matter sincerely.

Govt sees nukes as key power source

October 4, 2017

Seko: Zero nuclear plants unrealistic

https://www3.nhk.or.jp/nhkworld/en/news/20171003_25/

Japan's minister of economy, trade and industry says a proposal by Tokyo Governor Yuriko Koike's new party that the country have no nuclear plants is unrealistic.

At a news conference on Tuesday, Hiroshige Seko said the world faces the challenge of cutting carbon dioxide emissions, and electricity bills are rising.

But he said the government is trying to reduce the number of nuclear plants in Japan as much as possible.

The government sees nuclear plants as a key power source.

It says it will restart only reactors certified by the country's regulating body as meeting requirements introduced after the 2011 Fukushima disaster.

Seko stressed the government's stance of implementing balanced, realistic and responsible energy policies with safety as the top priority.

Can TEPCO be trusted?

October 5, 2017

VOX POPULI: Can TEPCO still be trusted after past disasters and attitudes?

<http://www.asahi.com/ajw/articles/AJ201710050018.html>

The other day, Tokyo Electric Power Co. President Tomoaki Kobayakawa pledged to ensure that the utility will place a higher priority on safety than on profitability in its operations.

Kobayakawa's pledge boils down to a simple and obvious truism. "I promise to cause no trouble to people when I try to make money."

It would probably be an insult to elementary school students to say his vow is like a line of repentance written by elementary school students.

But his pledge seems to have been somewhat helpful for his embattled company.

On Oct. 4, the Nuclear Regulation Authority gave the green light to the utility's plan to restart two boiling-water reactors at its Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture.

The nuclear safety regulator has concluded that the company is fit to operate nuclear reactors despite the catastrophic accident that occurred at its Fukushima No. 1 nuclear plant in 2011.

TEPCO is in the process of paying compensation for damage caused by the accident and decommissioning the reactors at the plant.

The company claims it needs to generate profits by bringing offline reactors back online to secure funds needed for these steps.

In other words, the firm is trying to restart other reactors to cover the costs of cleaning up the mess left by the Fukushima disaster. It is doing so even though there is no place available to dispose of nuclear waste. TEPCO's Kashiwazaki-Kariwa nuclear plant was hit by the powerful earthquake that occurred off Niigata Prefecture in 2007.

The earthquake caused a fire at the plant, and the operator failed to extinguish it quickly.

According to an Asahi Shimbun report, the TEPCO president at that time promised the Niigata governor it would learn valuable lessons from the experience and rebuild the facility as the safest nuclear power plant in the world.

Less than four years later, the reactors at the Fukushima plant, the same type as those at the Niigata plant, were struck by a severe accident.

Sadly, the company actually didn't learn any important lessons from the accident at the Niigata plant.

Both the central government and the Diet have terminated their efforts to clarify all the factors that contributed to the Fukushima accident. Only the Niigata prefectural government is still working to delve deeper into the causes of the Fukushima accident.

The central government is showing no interest in mapping out a way for Japan to wean itself from its heavy dependence on nuclear power generation.

The attitudes of the government and nuclear power plant operators appear to suggest that they are simply pretending to have tamed the technology when they actually haven't.

Government is involved in nuclear matters whether it wants it or not

October 5, 2017

EDITORIAL: Tokyo must face up to its duty in legal process for nuclear restarts

<http://www.asahi.com/ajw/articles/AJ201710050032.html>

Tokyo Electric Power Co. Holdings Inc. was the culprit of an unprecedented disaster at the Fukushima No. 1 nuclear power plant in 2011.

The utility remains busy to this day cleaning up after the mess.

Let us ask: should TEPCO be allowed to reactivate part of its fleet of idled nuclear reactors?

The central government has the responsibility to provide explanations to the public and to seek to gain their understanding. It should not proceed with nuclear restarts without fulfilling that duty and without serious debate.

The Nuclear Regulation Authority has approved a draft of its safety screening results for two of the seven reactors at the Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture, which TEPCO is hoping to bring back online. The nuclear watchdog's document says the reactors conform to technical standards. The development means the central government procedures for allowing the reactors to go back online have turned the corner. That also defines a milestone that could accelerate the recent trend for a "return to nuclear power."

TOKYO LEAVING IT ALL UP TO OTHERS

The administration of Prime Minister Shinzo Abe has taken the stance that, if the NRA approves a nuclear reactor's conformity with regulation standards, the central government will respect that decision and allow the reactor to go back online upon gaining the understanding of hosting communities.

But something important is missing from that approach.

Decisions on nuclear restarts, in essence, should not all be left up to the NRA and local governments to make. The central government should be making such decisions from an overall perspective by taking into account a variety of factors, including the risk of accidents, safety measures and social need.

TEPCO's Kashiwazaki-Kariwa plant, of all nuclear power plants across Japan, stands out by the large number of serious issues that have to be addressed.

For example, will survivors of the Fukushima disaster accept the restarts? Will it be possible to ensure safety, including by working out emergency evacuation plans, and erase concerns among the residents of neighboring areas?

In calling for restarts of the Kashiwazaki-Kariwa reactors, officials have placed so much emphasis on a need to make money to cover the expenses of dealing with the aftermath of the Fukushima disaster. Be that as it may, are the restarts really necessary for ensuring a stable power supply and for keeping electricity rates at low levels, as they claim?

And how precisely is the government planning to lower its dependence on nuclear energy on the basis of remorse over the Fukushima disaster?

These questions are on the minds of many members of the public, including those in Fukushima and Niigata prefectures. The central government has to address those questions.

The NRA is only responsible for technical checks by experts on the safety of nuclear power-generating facilities. This time around, the NRA took a special step, applicable only to TEPCO, in trying to decide if the utility is "qualified" to operate nuclear reactors.

That very step taken shows a flawed nature of the current procedures for nuclear restarts.

The NRA discussed, among other things, if TEPCO has sufficiently improved its culture of safety and its cliquish mold, and if a need to assign considerable labor and cash to the decommissioning of the Fukushima No. 1 reactors will not leave safety measures neglected at the Kashiwazaki-Kariwa plant.

The NRA was right in doing so, but it ended up giving the green light on the basis of the TEPCO president's mere oath of determination that the utility will hold itself responsible for safety, even though the NRA had yet to delve deeply enough into the issues of TEPCO's management structure and organizational administration. That decision could only be described as slapdash.

NEED FOR OVERALL REVIEW OF PROCEDURES

As things now stand, the procedures for allowing a nuclear reactor to be restarted are all left up to the NRA, local governments in areas hosting the nuclear plant and the power utility operating the plant. The

whole setup must be reviewed and redesigned into a mechanism that allows the central government to take ample responsibility.

The Abe administration emphasizes that the NRA screening standards are the most stringent in the world. The NRA itself, however, has reiterated that the standards only amount to minimum requirements.

The Abe administration, before everything else, should stop trying to create the impression that the NRA has fully guaranteed safety.

Emergency evacuation plans are not covered by the NRA screenings. The central government should have a hand in the matter.

There are also problems in the roles of the central and local governments.

Once the NRA procedure is over, the focus of attention shifts to whether prefectural and municipal governments in the area hosting the nuclear plant will grant their approvals for a reactor restart. That procedure, however, is only based on safety agreements with the power utility operating the plant.

In view of the serious nature of the damage that would result from a severe accident, the approval procedure should be given a legal status, along with direct involvement of the central government.

There is need for creating a system whereby all local governments within a 30-kilometer radius of a nuclear plant, which are obligated to develop emergency evacuation plans, consult with the central government, discuss a broad range of issues including effectiveness of the plans and the need for a restart, and decide whether to allow a reactor to go online.

The central government has said whether to restart individual nuclear reactors is a managerial decision on the part of power utilities, thereby staying away from coming to the fore.

The use of atomic energy, however, is a “national policy implemented by the private sector,” which has been bolstered by a number of policy incentives. The central government is therefore not allowed to just remain leaving it all up to nuclear plant operators.

TEPCO, of all utilities, has come under de facto central government ownership because it could no longer pay damages for the Fukushima disaster and clean up radioactive substances out of its own resources. The industry ministry is controlling TEPCO’s management policies.

The central government should assume the responsibility jointly with TEPCO for addressing questions and concerns over the planned nuclear restarts.

OPPORTUNITY FOR RETHINKING NUCLEAR ISSUE

When the Kashiwazaki-Kariwa reactors formally pass NRA screenings in the near future, that is expected to have a major impact on the future of nuclear energy in Japan.

All the 12 nuclear reactors that have so far passed NRA screenings represent pressurized-water reactors located in western Japan. The reactors at the Kashiwazaki-Kariwa plant will be the first boiling-water reactors--of the same type as the crippled reactors at the Fukushima No. 1 plant--to pass the screenings. That is likely to prime the pump and boost a trend for restarting more reactors in eastern Japan in the coming years.

Reactivation of the Kashiwazaki-Kariwa reactors would also revive a picture of the “pre-Fukushima” years in the greater Tokyo region, wherein major power consumption areas enjoyed benefits at the cost of pushing the risk of nuclear power generation on provincial areas.

Scars of the Fukushima disaster have yet to be healed more than six years after the tragic event. A majority of the public remains critical of the use of atomic energy.

Amid those circumstances is the growing list of completed check marks toward nuclear restarts, with the central government remaining ever elusive on the responsibilities it would have to assume.

We cannot afford to let such a situation just continue on. It is up to our entire society to face up to the issue of nuclear power generation.

Political parties should clearly set out their stances on the issue during campaigning for the Oct. 22 Lower House election. That would prompt debate in the Diet, which would, in turn, give the public an opportunity to rethink the matter.

The question of the restarts of the Kashiwazaki-Kariwa nuclear reactors should be a trigger for such a development.

What will happen to Japan's nuclear industry?

October 5, 2017

Nuclear power clash shaping up between ruling, opposition parties

https://mainichi.jp/english/articles/20171005/p2a/00m/0na/018000c#cxrecs_s

A three-way battle appears set to unfold during the general election campaign over the fate of Japan's nuclear power industry, with the **ruling parties pushing reactor restarts, conservative opposition forces favoring a planned phase-out, and centrist and left-wing parties pulling for elimination as soon as possible.**

- **【Related】** TEPCO reactors clear safety review for 1st time after Fukushima
- **【Related】** After much shuffling, election now a race between 3 political forces
- **【Japan Election 2017】**

While most opposition parties -- the conservative Party of Hope, and the Constitutional Democratic Party of Japan (CDP), the Social Democratic Party (SDP) and the Japanese Communist Party (JCP) in the center and on the left -- want an end to nuclear power, none have so far presented a concrete plan to eliminate it. This lack of specificity makes it hard to foresee debate on the issue reaching any depth during the campaign.

The new Party of Hope, led by Tokyo Gov. Yuriko Koike, has vowed to shut down all Japan's reactors by 2030, putting it one step ahead of the disintegrating Democratic Party (DP)'s promise to do so "in the 2030s." Speaking on Oct. 4, Koike revealed her intention to make the zero nuclear power pledge a major pillar of her party's platform, stating, "If we don't do what the (ruling) Liberal Democratic Party (LDP) has failed to do, then we cannot return Japan to its previous vigor."

Koike was obviously attempting to play up a clear difference between the Party of Hope and the LDP to woo voters. However, Koike's nuclear power promise is essentially the same as the DP's, in that it has not come with a clear schedule to make it a reality. Meanwhile, the party's election ally Nippon Ishin has not taken a clear anti-nuclear power position.

The newly minted CDP is also following in the nuclear power policy footsteps of the DP, and has promised to rid Japan of reactors as soon as possible. In an emailed newsletter sent on Oct. 4, CDP leader Yukio Edano stated, "We will put our greatest efforts into eliminating nuclear power even a day earlier," and also pledged to "release concrete details of the process and a work schedule" towards that end.

When the LDP released its election manifesto on Oct. 2, party policy chief Fumio Kishida stated, "If the debate on nuclear power is boiled down to a choice between saying 'yes' or 'no' to eliminating it, then no proper explanation is possible. As the political party responsible, we will present our thinking based on the full context of the issue including background aspects." However, despite Kishida's comments, nuclear power is not among the LDP's six main platform points.

The party's more detailed "policy bank" campaign pledge document declares that nuclear power "will be used to provide for (Japan's) base load power needs, on the precondition that safety is guaranteed." Junior

coalition partner Komeito's platform, meanwhile, says the party will "aim for zero nuclear power." The administration of Prime Minister Shinzo Abe has long lived with this conflicting policy position within the ruling coalition, while at the same time pushing for the restart of reactors that meet post-Fukushima meltdown safety standards.

Furthermore, only the JCP and SDP have declared their clear opposition to these restarts, with the NRA giving the Kashiwazaki-Kariwa Nuclear Power Plant in Niigata Prefecture a passing safety grade on Oct. 4. All the other parties would allow reactor restarts under certain conditions, and are competing with each other over how strongly they can impress the public with their goal of eliminating nuclear power.

"TEPCO's nature of covering up the truth remains unchanged"

October 5, 2017

Environmental economics expert questions clearing of TEPCO reactors in safety review

https://mainichi.jp/english/articles/20171005/p2a/00m/0na/005000c#cxrecs_s

The Nuclear Regulation Authority (NRA) has endorsed a draft document certifying that the No. 6 and 7 reactors at the Kashiwazaki-Kariwa power station in Niigata Prefecture operated by Tokyo Electric Power Company Holdings Inc. (TEPCO) have met new safety standards introduced after the Fukushima disaster - paving the way for the reactors to be restarted.

This move, however, has been questioned by Kenichi Oshima, a professor in environmental economics at Ryukoku University. Below is a summary of his comments.

- **【Related】** TEPCO reactors clear safety review for 1st time after Fukushima

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In an assessment of whether the No. 6 and 7 reactors at the Kashiwazaki-Kariwa Nuclear Power Plant meet new safety criteria, TEPCO, which was responsible for the Fukushima nuclear disaster, was also screened over whether it was qualified to resume nuclear power plant operations. The NRA gave TEPCO a "passing grade" in the assessment, but **TEPCO's nature of covering up the truth remains unchanged**, and I have serious misgivings about the NRA certifying reactivation.

During screening by the NRA, it emerged that TEPCO had exaggerated the quake resistance of a quake-proof building that would be used as the command and control hub in case of an accident at the Kashiwazaki-Kariwa Nuclear Power Plant. In addition, the company has continued to take an irresponsible attitude in a lawsuit residents filed over the disaster at the Fukushima No. 1 Nuclear Power Plant, saying that it was not possible to predict the Great East Japan Earthquake and tsunami (that triggered the plant meltdowns). In the assessment, TEPCO basically just declared, "We'll do things properly." How does that enable the NRA to judge that the company is qualified as a nuclear power operator? I'm left doubtful.

Under its rehabilitation plan, TEPCO says that it will be able to cover the costs of handling the Fukushima nuclear disaster if the Kashiwazaki-Kariwa plant goes back into operation. But two successive governors of Niigata have taken a cautious approach toward reactivation, and if the feelings of prefectural residents are taken into consideration, there's probably no way this (reactivation) can be permitted. I imagine that unless TEPCO faces the reality that reactivation of the Kashiwazaki-Kariwa Nuclear Power Plant is difficult, it will find its management in disarray.

Government and TEPCO ordered to pay damage to 3,800 plaintiffs



Lawyers hold banners saying "case won" on Oct. 10, 2017, after the Fukushima District Court recognized that the national government and Tokyo Electric Power Co. (TEPCO) are responsible for compensation to those who lived in Fukushima Prefecture at the time of the nuclear disaster. (Mainichi)

October 10, 2017

Court orders compensation for Fukushima victims

https://www3.nhk.or.jp/nhkworld/en/news/20171010_24/

The district court in Fukushima Prefecture has ordered the state and the operator of the Fukushima Daiichi nuclear plant to pay damages for mental distress resulting from the 2011 nuclear accident.

The ruling comes in a class action suit filed by about 3,800 people. It is the 2nd case in which a court has acknowledged the government's liability for post-traumatic distress.

The plaintiffs brought the lawsuit in 2013. They include people who continued to live in their homes in the prefecture as well as those who evacuated from the area after the disaster.

Their suit stated that they suffered and continue to suffer mental distress after the accident destroyed the foundation of their livelihoods.

At issue was whether the government and operator Tokyo Electric Power Company could have foreseen the major tsunami on March 11, 2011, and prevented the damage. Whether TEPCO is paying appropriate compensation to evacuees, as well as the extent of its recipients, were also questioned.

On Tuesday, presiding judge Hideki Kanazawa ruled that the government and TEPCO are responsible for the accident.

More than 12,000 people across Japan have filed class action lawsuits over the accident with courts in 18 prefectures.

The suit in Fukushima Prefecture involves the largest number of plaintiffs. The Maebashi District Court in Gunma Prefecture, eastern Japan, handed down a similar ruling in March.

BREAKING NEWS: Government Ordered to Pay Fukushima Damages

<https://www3.nhk.or.jp/nhkworld/en/news/editors/3/20171010breaking/>

A Fukushima district court in northeastern Japan has ordered the government and the operator of the crippled Fukushima Daiichi nuclear power plant to pay damages to about 3,800 plaintiffs affected by the 2011 nuclear accident.

Gov't, Tepco ordered to pay damages for Fukushima disaster

<https://mainichi.jp/english/articles/20171010/p2g/00m/0dm/057000c>

FUKUSHIMA, Japan (Kyodo) -- A Japanese court on Tuesday ordered the state and the operator of the crippled Fukushima nuclear plant to pay damages over the March 2011 nuclear crisis, triggered by a deadly earthquake and tsunami disaster.

The Fukushima District Court ordered the government and Tokyo Electric Power Company Holdings Inc. to pay a total of 500 million yen (\$4.4 million) in the damages suit sought by around 3,800 plaintiffs, the most among around 30 similar suits filed in the wake of one of the world's worst nuclear accidents at the Fukushima Daiichi nuclear complex.

The ruling by the Fukushima court is the third against Tepco, following decisions by the Maebashi District Court in March and the Chiba District Court last month. Of the three, only the Chiba court dismissed claims against the state.

While plaintiffs in the two previous cases were evacuees, over 80 percent of those in the Fukushima court case did not flee their homes after the accident.

In the ruling, the court concluded that the government was able to foresee a huge tsunami and avert a subsequent nuclear accident, while dismissing the claim by the plaintiffs that radiation levels around their residences should be restored to what they were before the crisis.

The plaintiffs claimed the government should be held liable because it was able to foresee the tsunami based on an assessment in 2002 and make Tepco take preventive measures.

The long-term earthquake assessment, made by the government's earthquake research promotion unit, predicted a 20 percent chance of a magnitude-8 level tsunami-triggering earthquake occurring along the Japan Trench in the Pacific Ocean within 30 years, including the area off Fukushima.

The government and Tepco, for their part, claimed the assessment was not established knowledge and that the tsunami could not have been foreseen. The government also argued that it only obtained powers to force Tepco to take anti-flooding measures after a legislative change following the disaster.

The plaintiffs also urged that radiation levels at their residences be restored to the levels before the accident. They sought monthly compensation of 50,000 yen until the radiation levels return to the pre-crisis level of 0.04 microsievert per hour.

The magnitude-9.0 earthquake and ensuing tsunami struck northeastern Japan on March 11, 2011, causing multiple meltdowns and hydrogen blasts at the nuclear power plant. Around 55,000 people remained evacuated both within and outside Fukushima Prefecture as of the end of August.

Over 10,000 people have joined the roughly 30 suits filed at courts across the country.

Angry and disappointed at Japan's attitude

October 12, 2017

Nobel Peace Prize laureate raps Japan's snub of nuclear ban treaty

<https://www.japantimes.co.jp/news/2017/10/12/national/politics-diplomacy/nobel-peace-prize-laureate-raps-japans-snub-nuclear-arms-treaty/#.Wd9ZCTtpGot>

Kyodo

A key member of an international organization that won this year's Nobel Peace Prize criticized the Japanese government Wednesday for ignoring a landmark U.N. treaty that outlaws nuclear weapons.

"This extraordinary silence on this treaty by the Japanese government is very, very disappointing and frustrating," Akira Kawasaki of the International Campaign to Abolish Nuclear Weapons said at the Foreign Correspondents' Club of Japan.

ICAN won the prize last week for its efforts that led to the adoption in July of the Treaty on the Prohibition of Nuclear Weapons.

But the statement released by the Foreign Ministry about the award did not mention the treaty, Kawasaki said, adding that Tokyo is also expected to submit a draft U.N. resolution on nuclear disarmament without referring to the treaty.

Along with the world's nuclear weapons states, Japan did not sign the treaty, which was adopted by 122 U.N. members, as it relies on the U.S. nuclear deterrence for protection.

Kawasaki, an ICAN International Steering Group member and a co-chair of Japanese nongovernmental organization Peace Boat, also said that supporting the treaty will help Japan in dealing with threats from North Korea's nuclear and missile development.

The treaty "delegitimizes North Korean actions on nuclear weapons," he said.

Sueichi Kido, 77, who survived the 1945 U.S. atomic bombing in Nagasaki at the age of 5, also attended the news conference as ICAN has been working with hibakusha in its campaign.

The fact that Japan did not sign the treaty "is not only embarrassing and sad but also makes me very angry," Kido said.

Draft UN resolution totally ignores ban treaty

October 12, 2017

Japan's draft U.N. motion on nuclear weapons omits landmark treaty signed by 122 countries

<https://www.japantimes.co.jp/news/2017/10/12/national/japans-draft-u-n-motion-nuclear-weapons-omits-landmark-treaty-signed-122-countries/#.Wd9YbTtpGov>

Kyodo

NEW YORK – A draft U.N. resolution circulated by Japan on the elimination of nuclear weapons makes no mention of the recently adopted landmark treaty banning nuclear weapons, according to a copy obtained Wednesday.

The draft came after an international group last week won this year's Nobel Peace Prize for its efforts leading to the adoption in July of the Treaty on the Prohibition of Nuclear Weapons.

Japan, the only country to have suffered a nuclear attack, has been sponsoring a U.N. resolution calling for the abolition of nuclear weapons for more than two decades. But it boycotted U.N. negotiations on the pact along with nuclear-armed and other nuclear-umbrella nations.

The draft resolution “renews the determination” of all countries “to take united action towards the total elimination of nuclear weapons.”

In language new to this draft, it says this can be achieved “through the easing of international tension and the strengthening of trust between states as envisioned in the Preamble of the Treaty on the Non-Proliferation of Nuclear Weapons in order to facilitate disarmament, and through strengthening the nuclear nonproliferation regime.”

The nuclear-armed and nuclear-umbrella nations support pursuing the goal of eliminating weapons through adhering to the NPT, which went into force in 1970.

But out of frustration at a lack of progress, many nations instead pushed for the ban treaty, especially as the nuclear weapon states continue to modernize their arsenals.

Over the years, the Japan-led U.N. resolution has gained more and more sponsors. Last December the U.N. General Assembly backed it with 167 votes. Only North Korea, China, Russia and Syria opposed it, with 16 other nations abstaining.

Since last year, however, the context has changed with the nuclear weapons ban treaty having garnered support under the pressure of nuclear activists — including atomic bomb survivors, known as hibakusha. The nuclear weapons ban treaty, adopted in July by 122 countries, was opened for signatures in September. It will enter into force 90 days after the document has been ratified by 50 nations, and will be legally effective for an unlimited duration.

The draft of the Japan-led resolution also calls on nations to strengthen trust as well as “create conditions” to review military and security arrangements “taking into account the security environment.”

Given the increasing North Korean nuclear threat, Japan and the United States, among others, believe in the necessity of maintaining nuclear weapons for their security.

The text also calls upon countries “create conditions that would allow for further reduction of nuclear weapons.”

In similar language used in other years, the draft expresses “deep concern at the catastrophic humanitarian consequences” of nuclear weapons.

Government's responsibility made clear

October 11, 2017

Evacuees hail ruling citing negligence in nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201710110042.html>

THE ASAHI SHIMBUN

Evacuees praised the Fukushima District Court’s Oct. 10 ruling that harshly criticized the central government for negligence in not ordering Tokyo Electric Power Co. (TEPCO) to take safeguards against tsunami, which led to the 2011 nuclear disaster.

“If we do not try to make the government’s responsibility clear, a (similar) accident will be repeated. On that point, we obtained a complete victory (as the ruling acknowledged the government’s responsibility),” said Takashi Nakajima, 61, leader of the plaintiffs.

The court ordered the government and TEPCO to pay compensation of 500 million yen (\$4.4 million) in total damages to 2,907 of the 3,824 plaintiffs.

It was the second court ruling to acknowledge the government's responsibility for failing to prevent the accident at the Fukushima No. 1 nuclear power plant, following the Maebashi District Court ruling in March.

The Chiba District Court in September, however, did not accept the plaintiffs' assertion that the government is responsible for the nuclear accident, which was caused by tsunami triggered by the Great East Japan Earthquake in March 2011.

In the Oct. 10 ruling handed down by the Fukushima District Court, presiding judge Hideki Kanazawa acknowledged that TEPCO and the government were both responsible for the nuclear accident.

However, the district court rejected the plaintiffs' demand that TEPCO and the government restore their living environments to pre-disaster levels.

The focus of the trial was the credibility of the "long-term appraisal" worked out by the government's Headquarters for Earthquake Research Promotion in July 2002. The appraisal pointed out the possibility that a major earthquake that would trigger a tsunami could occur off the coast of Fukushima Prefecture. As for the assessment, the government and TEPCO offered rebuttal, including the opposing views of experts.

The two defendants asserted that it was impossible to predict a major tsunami like the one that struck the nuclear plant. They also said that even if they took measures against tsunami, that would not have prevented the nuclear accident.

On the other hand, the Oct. 10 ruling placed importance on the long-term appraisal as an official viewpoint that was reached through experts' discussions. The ruling also said that even if other experts expressed opposing views, it cannot be argued that the credibility of the long-term appraisal had been lost.

The ruling said that if the government conducted simulations based on the long-term appraisal, it could have predicted a tsunami reaching a height of 15.7 meters, which was higher than the compound of the nuclear plant.

If the government had ordered TEPCO to take safeguards against tsunami of that scale by the end of 2002 based on the forecast, it could have prevented the nuclear accident, the ruling also said.

"The Fukushima District Court's ruling acknowledged that if the government followed the long-term appraisal, it would have been able to prevent the situation in that all electric sources were lost (and, as a result, the nuclear accident occurred)," said Hitoshi Yoshioka, who served as a member of the government's investigation committee on the nuclear accident. **"The ruling pointed out again that the government and TEPCO are bearing major responsibility for neglecting to take measures (to safeguard the nuclear plant against tsunami of that scale)."**

TEPCO to pay 6 million dollars compensation to golf course

October 12, 2017

TEPCO ordered to compensate golf course

https://www3.nhk.or.jp/nhkworld/en/news/20171011_29/

A Tokyo court has ordered the operator of the Fukushima Daiichi nuclear plant to pay nearly 6 million dollars in compensation to the operator of a golf course damaged as a result of the 2011 nuclear accident.

The course is located within 30 kilometers of the plant, in the city of Minamisoma, in Fukushima

Prefecture.

In its suit against Tokyo Electric Power Company, the course's operator demanded decontamination work and compensation for a decline in visitors.

Tokyo District Court presiding Judge Yuko Mizuno dismissed the decontamination demand on Wednesday. She said it wasn't clear how the work would be carried out.

However, the judge did acknowledge that part of the course was rendered unusable, and that fewer golfers were coming as a result.

She said it would take at least 10 years for the course to be as profitable as it was before the 2011 accident, because of its location.

The judge ordered the utility to pay the golf course operator some 5.8 million dollars in damages.

TEPCO told to pay 670 million yen for golf club's losses

<http://www.asahi.com/ajw/articles/AJ201710120039.html>

By RYOSUKE YAMAMOTO/ Staff Writer

A court ordered Tokyo Electric Power Co. to pay 670 million yen (\$6 million) to a golf course operator as compensation for revenue losses caused by the Fukushima nuclear disaster.

Tokyo-based Kashima Sogyo, which runs the Kashima Country Club in Minami-Soma, Fukushima Prefecture, had sought 5.8 billion yen from TEPCO on grounds the triple meltdown at the utility's Fukushima No. 1 nuclear power plant in 2011 resulted in a sharp drop in customers.

In her Oct. 11 ruling, Presiding Judge Yuko Mizuno of the Tokyo District Court said the nuclear disaster rendered part of the golf course unusable, causing financial hardship for Kashima Sogyo.

The judge calculated the company's losses by comparing the club's revenues prior to and after the accident.

Kashima Country Club was forced to close for three months in 2011 because the area it lies within, between 20 and 30 kilometers from the nuclear plant, was designated as an "emergency evacuation preparation zone."

Since reopening, only a limited section of the golf course has been available, and the number of customers has decreased.

The judge, however, dismissed the plaintiff's demand that TEPCO decontaminate the golf course.

"The contents and method of decontamination have yet to be specified and therefore the demand is inappropriate," she said.

Restart: Are we talking about safety?

October 8, 2017

NRA's nod for a Tepco nuclear plant restart

<https://www.japantimes.co.jp/opinion/2017/10/08/editorials/nras-nod-tepco-nuclear-plant-restart/#.WdyRpDtpGos>

The Nuclear Regulation Authority's effective go-ahead last week for restarting two reactors in Niigata Prefecture came just a few months after the departing NRA chief, Shunichi Tanaka, called Tokyo Electric Power Holdings Co. unfit to run a nuclear power station. He said Tepco lacks the will to take the initiative in decommissioning the crippled Fukushima No. 1 plant, where three reactors suffered core meltdowns in the mega-disaster of March 2011.

While restarting reactors 6 and 7 at the giant Kashiwazaki-Kariwa plant on the Sea of Japan coast is not expected to take place anytime soon — due to opposition from the local governor, whose consent will be needed — it must be scrutinized whether the nuclear watchdog carefully assessed Tepco's qualifications as a nuclear plant operator after seeming to question its fitness so severely as recently as July.

Exposed to a tightening business environment due to liberalization of the power retail market, Tepco sees the restart of the Kashiwazaki-Kariwa plant as crucial to rebuilding the company's finances, which were battered by the massive cost of decommissioning the Fukushima No. 1 plant and paying damages to residents affected by the disaster — which will reach an estimated ¥16 trillion. The government believes that reopening the Niigata plant will help Tepco in its compensation efforts and measures to cope with severe accidents. But that should not factor in the safety screening before bringing the idled reactors back online.

The NRA's approval for reactivating the Kashiwazaki-Kariwa reactors was the first given to a plant run by Tepco, which continues to struggle in the fight to clean up the mess from the triple meltdowns at Fukushima No. 1 after the plant was flooded in a giant tsunami and lost emergency power supply to cool the reactors. It was also the first NRA nod — under a revamped safety standard following the 2011 crisis — for restarting a boiling-water reactor, the same type as used at Fukushima No. 1.

In screening Tepco's bid to restart the Kashiwazaki-Kariwa plant, the NRA focused on whether the power company responsible for the Fukushima debacle was fit to run a nuclear power plant. During a session in July, then-NRA chief Tanaka appeared to doubt that, telling Tepco executives that a company which cannot demonstrate its resolve and achievement to decommission the Fukushima No. 1 plant was not qualified to restart another nuclear plant.

That changed after Tepco told the nuclear watchdog in August that it was determined to follow through on the decommissioning of Fukushima No. 1. During NRA's sessions held in September, Tanaka said the experience of the Fukushima No. 1 disaster will be a plus for Tepco in its nuclear power plant operation and that the watchdog had reached a consensus that Tepco is qualified to restart the Kashiwazaki-Kariwa plant, setting the stage for the approval given last Wednesday. Toyoshi Fuketa, who took over as NRA chief after Tanaka stepped down Sept. 18, said the NRA ultimately made its judgment solely on the basis of whether Tepco is technologically capable of restarting a nuclear plant. **It would be unfortunate if the NRA's apparent turnaround was driven by its desire to reach a conclusion on the sensitive matter in time for Tanaka's exit.**

It is questionable whether the NRA's decision properly addresses people's concern over the safety of nuclear power — as indicated by media surveys that show a major portion of respondents are still opposed to restarting the reactors idled in the wake of the 2011 disaster. Six years later, nuclear energy remains a politically contested issue. While the administration of Prime Minister Shinzo Abe has pushed for the restart of idled reactors once they have cleared the NRA's screening, the new party launched by Tokyo Gov. Yuriko Koike — which is poised to be the main contender to Abe's ruling coalition in the upcoming Lower House snap election — is calling in its campaign platform for a phaseout of nuclear power by 2030.

Power companies seek to reactivate their idled nuclear reactors to save on the huge cost of fuel imported to operate their thermal power plants. Tepco reportedly stands to gain up to ¥200 billion in annual profit by restarting the two reactors at the Kashiwazaki-Kariwa plant.

It's not clear, however, whether continued reliance on nuclear power will be a sustainable model for the power industry. In many other countries, nuclear power is becoming a costly business due to surging construction and maintenance costs. Power companies in Japan, now exposed to greater competition through electricity retail deregulation, will not be immune to this change.

Kobe Steel in Japanese nuke plants

KOBE STEEL MAJOR SUPPLIER TO JAPANESE NUCLEAR INDUSTRY – AS EMBATTLED COMPANY ADMITS SUPPLYING TEPCO's FUKUSHIMA DAINI REACTORS

GREENPEACE DEMANDS IMMEDIATE DISCLOSURE

Tokyo, 13 October 2017 - Kobe Steel products are widely used inside nuclear reactors in Japan with major safety implications for operating reactors and those due to restart, Greenpeace warned today. Kobe Steel is currently embroiled in a scandal involving the supply of aluminium, copper and steel products. However, for decades Kobe Steel and its subsidiaries have supplied components to the Japanese (and worldwide) nuclear industry. Kobe Steel confirmed late on 13th October, that suspect aluminium and copper tubes had been supplied to TEPCO's Fukushima Daini nuclear power plant, but had not been installed.⁽¹⁾

"This is an urgent matter. Four reactors are operating in Japan most likely with Kobe Steel supplied components. These include some of the most critical inside a nuclear plant and for which failure is not permitted under regulation – the reason being the consequences would be so severe," said Shaun Burnie, senior nuclear specialist at Greenpeace Germany in Tokyo. ***"Quality assurance and the nuclear industry is a contradiction in terms – but at least Kobe Steel and all of Japan's utilities must disclose their supply chain and which components are at risk. Japan's Nuclear Regulation Authority must also immediately act in the interests of public safety – not those of the nuclear industry,"*** said Burnie.

Greenpeace is particularly concerned with the supply by Kobelco Steel Tube (a subsidiary of Kobe Steel) of steel tubing which is used in pressurized components inside nuclear reactors. These include steam generators and condensers inside Pressurized Water Reactors (PWRs). Four PWR's at Takahama and Sendai nuclear power plants are currently operating. Each steam generator contains 3-5000 tubes. Equally worrying is that Kobelco has supplied steel tubing for feed water systems in both PWR's and Boiling Water Reactors (BWRs). The reliability of feed water systems is essential both in routine operation but also in the event of emergency shutdown.

All of these components operate under enormous temperature and physical pressures with the risk that if they fail it could lead to the loss of essential cooling function to the reactor core and risking a severe accident, including reactor meltdown. Zirco Products Co., Ltd, a joint owned subsidiary of Kobe Special Tube Company and Sumitomo Metal Industries Ltd. and based in Shimonoseki, also supplies zirconium alloy fuel cladding tubes which are used in Japan and globally to contain fuel rods inside nuclear reactor cores.

The revelations of deliberate falsification at Kobe Steel follows a major scandal involving two other steel suppliers to the nuclear industry, Japan Steel Works and JCFC. Steel manufactured by these two companies was under investigation in France and Japan, following revelations of falsified quality control supplied to French nuclear reactors. The underlying manufacturing problems were not resolved following Greenpeace investigations despite assurances in that the components were safe by the French regulator.(2)

Kobe Steel also supplies aluminium for the baskets inside spent fuel casks. The integrity of these is essential to prevent damage to the fuel which under certain conditions could lead to a criticality.

For further information:

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Notes to editors:

1 – See NHK - Tampering with piping of Kobe Steel Fukushima Dai-ni Nuclear Power Plant, 13 October 2017

- <http://www3.nhk.or.jp/news/html/20171013/k10011177061000.html>

2 – see Japanese Reactor Steel at Risk of Catastrophic Failure - JCFC, JSW and JFE Holdings under Suspicion, <http://www.greenpeace.org/japan/ja/news/press/2016/pr201612131/>

Subsidies suspected of being used to gain support for restarts

October 13, 2017

Japan's quiet payouts to cities near nuclear plants fuels speculation of political ploy

<https://www.japantimes.co.jp/news/2017/10/13/national/japans-quiet-payouts-cities-near-nuclear-plants-fuels-speculation-political->

Kyodo

In an apparent bid to win support for the restart of nuclear power plants, the state has quietly expanded the scope of subsidies for host cities to include local governments within 30 kilometers of the facilities, a charge the government denied Friday.

The change came into force in April with no announcement to the media from the industry ministry, fueling speculation that it was meant to assuage the concerns of municipalities surrounding host cities about plants taken offline in the wake of the 2011 Fukushima nuclear crisis.

A government official, however, denied this speculation.

“We reviewed the system after learning that nuclear power plants also influence surrounding areas,” the official, with the industry ministry’s Agency for Natural Resources and Energy said, adding that the change had been reported on the ministry’s website and that local governments were briefed.

Under the shift, more than 150 local governments are entitled to the subsidy, for which ¥4.5 billion (\$40 million) was allocated in the fiscal 2017 budget, the same amount as in fiscal 2016. The ministry has requested a ¥5 billion budget for fiscal 2018.

According to the agency, the program began in fiscal 2016, mainly to promote renewable energy and other measures to revitalize the economies of municipalities hosting nuclear power plants when the facilities are scrapped due to old age.

Utilities face a constant cycle of reactors going online or offline through decommissioning or the suspension of operations. For example, at Chugoku Electric Power Co.'s nuclear plant in Shimane Prefecture, the No. 1 unit is set to be decommissioned as the operator seeks to restart its No. 2 unit. The change from fiscal 2017 allowed the subsidies to be paid out to towns and villages within 30 km of a nuclear complex, in addition to the host prefectural governments.

To gain approval for restarts, utilities effectively need to obtain consent from prefectural and municipal governments hosting the nuclear complexes, although such efforts are not required by law.

Since the 2011 nuclear disaster, which caused damage to a wide area, surrounding municipalities have stepped up calls for a stronger voice in deciding whether to resume nuclear reactor operations.

But the state and utilities are reluctant to expand the scope of municipalities from which they need to obtain consent, saying that doing so would make restarts exceedingly difficult.

Enjoy the appeal of outdoors Fukushima

October 15, 2017

Fukushima takes camping to a whole new level of luxury with 'glamping'

<https://www.japantimes.co.jp/news/2017/10/15/national/fukushima-takes-camping-whole-new-level-luxury-glamping/#.WeR4PztpGos>

Fukushima Minpo

"Glamping" — i.e., camping but with the comforts of modern amenities — has been growing in popularity in Fukushima Prefecture as more people look to bring a new level of luxury to the great outdoors.

Koriyama-based Magonote Travel hosted a one-day tour in mid-September to introduce cushy ways to take in the splendors of Shidahama Beach on Lake Inawashiro.

Around 40 people from and around the city of Koriyama took part in the tour, co-organized by Fukushima University associate professor Akiko Endo's laboratory.

The participants gathered in Koriyama before heading to the beach by bus. Those who live in the city were also provided with taxi services between their homes and the gathering spot.

The glamping excursion itself took place at a private beach located next to a local hotel, Lakeside Banko, in Shidahama Beach. Wooden sofas, tables and beds were placed at the campsite by the lake near the beach, giving the area a tropical feel.

The glampers enjoyed beer, wine, highballs and soft drinks at a bar while they waited for marshmallows to roast by a campfire.

The tour also included 3½ hours of special activities, including stand-up paddle boarding, yacht cruising, hands and feet aroma massage and hot spring bathing at the Lakeside Banko hotel.

Those who joined the yacht cruise, conducted in cooperation with the Koriyama Yacht Club, were excited to sail under the gaze of Mount Bandai, with many saying it was their first time on such a vessel.

Aroma massage was also popular among women, who made up 80 percent of the participants, as it afforded them a way to unwind amid nature.

After the glampers worked up at appetite during their chosen activities, it was then time for the much-awaited sunset dinner.

Hot meals were prepared in a kitchen car and served buffet style. Basking in the warm glow of the sunset, the guests enjoyed the dishes that featured seasonal vegetables from Koriyama.

"We don't have to bother about preparing our own meals. So we can all relax and enjoy the outdoors," said Yukiko Takita, a 72-year-old company executive who participated in the event. "It's also nice to be able to enjoy freshly baked food prepared in a kitchen car."

Using the monitoring tour as a stepping stone, Magonote Travel is planning to introduce similar tours across Fukushima.

"We are planning take the kitchen car not only to glamping sites but also to farms and orchards to host food camps," said Shonoshin Yamaguchi, 47, president of Magonote. "We want to spread the appeal of Fukushima in new styles."

For inquiries, call Magonote Travel: 024-945-1313.

Rokkasho: 14 years of faked safety checks

October 12, 2017

Japan Nuclear Fuel skipped safety checks at Rokkasho plant for 14 years

<https://www.japantimes.co.jp/news/2017/10/12/national/japan-nuclear-fuel-skipped-safety-checks-rokkasho-plant-14-years/#.Wd9XkDtpGos>

Kyodo

Nuclear regulators concluded Wednesday that Japan Nuclear Fuel Ltd. violated legally binding safety rules by failing to conduct necessary checks for over a decade at its uncompleted spent nuclear fuel reprocessing plant in the country's northeast.

The failure of checks at an underground portion of the plant in the village of Rokkasho in Aomori Prefecture for about 14 years eventually resulted in about 800 liters of rainwater flowing into a building housing an emergency diesel generator in August this year. The generator is a crucial device in times of crisis such as the loss of external power.

Japan Nuclear Fuel President Kenji Kudo said at a Nuclear Regulation Authority's meeting that he will prioritize inspections of all facilities at the plant and suspend its operations to seek a safety approval on the plant to put it on stream.

The utility plans to check its facilities and some 600,000 devices by the end of this year before requesting the authority to resume its safety assessment for the plant.

The body applied for a safety assessment of the plant in 2014 and aimed to complete it in the first half of fiscal 2018, but the goal is likely to be delayed due to the need for inspections.

The envisioned nuclear fuel reprocessing plant is a key component of the government's nuclear fuel recycle policy, which aims to reprocess spent uranium and reuse extracted plutonium and uranium as reactor fuel.

But the Rokkasho plant has been inundated with problems, with its completion date postponed 23 times since 1997, its initial target. It also had to meet new, tougher safety standards made in the wake of the

crisis at the Fukushima No. 1 nuclear power complex, triggered by the powerful March 2011 earthquake and tsunami that devastated parts of the Tohoku region.

The authority also said holes and cracks at exhaust pipes found at Japan Nuclear Fuel's uranium enrichment plant in September also violated safety rules. The defects had been undetected due to a lack of inspections.

A utility compiles safety programs, which need to be assessed and approved by the authority.

If any grave flaws are found, the authority can issue an order to stop the operation of the plants or retract its approval to construct a nuclear plant.

Japan Nuclear Fuel "should have a substantial sense of crisis," a member of the authority said. "We will take necessary measures if an improvement is not seen in ensuring the safety (in operating the plant)."

October 11, 2017

Unfinished nuclear fuel reprocessing plant faked safety records: NRA

<http://mainichi.jp/english/articles/20171011/p2a/00m/0na/017000c>

The firm that owns an uncompleted nuclear fuel reprocessing plant in Aomori Prefecture failed to conduct necessary checks and falsified safety check records relating to the plant, the Nuclear Regulation Authority (NRA) has reported. The NRA concluded on Oct. 11 that Japan Nuclear Fuel Ltd. (JNFL) has violated safety measures after it was learned that the firm failed to carry out the required checks and nevertheless continued to write down "no abnormalities" in safety check records. There has been a spate of incidents such as the flow of rainwater into facility buildings at the plant in the Aomori Prefecture village of Rokkasho.

The plant, which is scheduled to reprocess spent nuclear fuel, was on the verge of hosting a final-stage NRA safety inspection, but the checkup is likely to be postponed considerably as JNFL now has to prioritize in-house inspections of all facilities at the plant.

One of the main roles of a nuclear fuel reprocessing plant is the extraction of reusable uranium and plutonium from spent nuclear fuel, making it a key part of the nuclear fuel cycle. However, the Rokkasho plant has been riddled with problems, and its completion date has been postponed 23 times since the initial planned opening date of 1997. Currently, the plant is scheduled to be completed in the first half of fiscal 2018, but this could be difficult.

In August, it came to light that about 800 liters of rainwater had flowed into an emergency electrical power building at the plant. The cause was the leaking of rainwater from an underground facility. This facility, however, has never been checked since its construction in 2003. JNFL nevertheless gave it a false "no abnormalities" appraisal in its daily records. Furthermore, about 110 liters of rainwater also flowed into the underground facility in September.

Apparently, the firm has tried to clarify the issue by saying that, "The (no abnormalities) comment was referring to another underground facility nearby."

The company plans to complete safety checks at all its Rokkasho plant facilities within the year, and then submit the results to the NRA -- with the intention of inviting the NRA to resume safety inspections of the plant.

Oi reactors too costly to update for restart

October 18, 2017

Kansai Electric likely to scrap aged Oi reactors due to huge costs

<http://www.asahi.com/ajw/articles/AJ201710180049.html>

Kansai Electric Power Co. looks set to pull the plug on two aging reactors at its Oi nuclear power plant in Fukui Prefecture on grounds it would be far too costly to make safety updates to meet industry standards. The No. 1 and No. 2 reactors at Oi have a generating capacity of more than 1 gigawatt each, making them among the most powerful in Japan.

Possible decommissioning of such large-scale reactors could jeopardize the Abe administration's goal of having nuclear energy meet 20-22 percent of the nation's electricity needs in fiscal 2030.

To achieve that target, 30 or so reactors would need to be in operation. Currently, five are back online.

The government projects that its goal is achievable if the nation's nuclear watchdog body allows existing reactors to operate for 60 years.

Kansai Electric said that the price tag of at least 400 billion yen (\$3.57 billion) in necessary safeguard measures to bring the reactors online would prove too costly for it to reap profits, according to sources familiar with the situation.

"In my opinion, they should be decommissioned, rather than going out of our way to bring them back online," a top Kansai Electric executive said Oct. 17.

Kansai Electric is expected to make its decision in November.

The Oi reactors are each capable of generating more than 1,175,000 kilowatts. They went online in 1979, and are close to the 40-year lifespan for reactors that is now the norm under the stricter nuclear regulations established after the 2011 Fukushima disaster.

The Nuclear Regulation Authority will allow a one-time 20-year extension to that principle if an operator is deemed to have taken appropriate safety measures.

The utility has until the end of this year, and next year, to apply for extended deadlines for each of the reactors.

Kansai Electric decided to mothball two reactors at the Mihama nuclear plant in Fukui Prefecture after the triple meltdown at the Fukushima No. 1 nuclear plant triggered by the earthquake and tsunami disaster more than six years ago.

They are among 12 reactors that face being decommissioned, including the six reactors of Tokyo Electric Power Co.'s crippled Fukushima facility.

Except for those at the Fukushima plant, all of the rest have a generating capacity well below 1 gigawatt. Utilities have been pushing to bring reactors back online, especially ones with a larger generating capacity, to improve their bottom lines.

Shigeki Iwane, president of Kansai Electric, said at a news conference just in September, "We are thinking about applying for an extension of operations (for the Oi No. 1 and No. 2 reactors.)"

But the company is now leaning toward decommissioning on grounds of the huge outlays that would be needed to keep them going under the new regulations.

Kansai Electric's overall outlay for safeguards for seven reactors that have already restarted or are expected to in coming years will hit an estimated 830.4 billion yen.

The figure represents more than 20 percent of the overall total of 3.8 trillion yen in such measures logged by 11 operators of nuclear plants.

In addition, Kansai Electric's spending will likely top 1 trillion yen in the end, given the requirement to safeguard nuclear facilities against a possible terrorist attack.

If Oi's two pressurized-water reactors were restarted, it would cost the company at least 400 billion yen more.

The units are designed to use ice in the event of an accident, making them unique among reactors in Japan. Their containment vessels are smaller than conventional ones.

The utility envisages that additional safety measures that would be needed to win NRA approval will be far more difficult to achieve than those needed for other reactors now back online.

Kansai Electric also expects that the NRA's screening process will prove to be prolonged because of the reactors' special features.

That would likely reduce the time left for the Oi reactors to operate under the 20-year extension, the sources said.

As a result, the utility fears that there is little chance of a payoff by resuming operations.

Prior to the Fukushima disaster, about 40 percent of Kansai Electric's electricity output was generated by its 11 reactors, making it the most dependent on nuclear energy of all operators of nuclear facilities.

How is Govt going to revise its energy plan?

Status of nuclear power plants built before 1985

	Power company	Nuclear power plant	Output (10,000 kW)	Start date
Decommissioning decided	Japan Atomic Power Co.	Tsuruga No. 1 reactor	35.7	Mar. 1970
	Kansai Electric Power Co.	Mihama No. 1 reactor	34	Nov. 1970
		Mihama No. 2 reactor	50	July 1972
	Chugoku Electric Power Co.	Shimane No. 1 reactor	46	Mar. 1974
	Kyushu Electric Power Co.	Genkai No. 1 reactor	55.9	Oct. 1975
Being coordinated	Shikoku Electric Power Co.	Ikata No. 1 reactor	56.6	Sept. 1977
	Kansai Electric Power Co.	Oi No. 1 reactor	117.5	Mar. 1979
		Oi No. 2 reactor	117.5	Dec. 1979
Long-term operating plants	Japan Atomic Power Co.	Tokai No. 2 plant	110	Nov. 1978
	Kyushu Electric Power Co.	Genkai No. 2 reactor	55.9	Mar. 1981
	Shikoku Electric Power Co.	Ikata No. 2 reactor	56.6	Mar. 1982
	Tohoku Electric Power Co.	Onagawa No. 1 reactor	52.4	June 1984
	Kyushu Electric Power Co.	Sendai No. 1 reactor	89	July 1984

October 18, 2017

Planned decommissioning of KEPCO reactors puts pressure on gov't energy goals

<https://mainichi.jp/english/articles/20171018/p2a/00m/0na/006000c>

Following Kansai Electric Power Co. (KEPCO)'s decision to work toward decommissioning the No. 1 and No. 2 reactors at its Oi Nuclear Power Plant in Fukui Prefecture, it is now more likely that other aging nuclear plants across Japan will also be decommissioned, regardless of size.

- **【Related】** Gov't reluctant to review energy plan as nuclear power policy could further hurt Cabinet

As a result, the government will now be watched closely regarding its next move. Specifically, the key issue will be whether it will approve the construction of new or replacement nuclear power plants so as to

achieve its goal of supplying 20 to 22 percent of the nation's electric power from nuclear power plants by fiscal 2030.

The aim of providing 20 to 22 percent of electric power in this way falls under the government's "Basic Energy Plan." In order to provide 20 percent of power from nuclear energy sources, it would be necessary to restart about 30 nuclear reactors. However, of the existing 45 reactors across the country, only 14 reactors at seven plants have met the safety standards set down by the Nuclear Regulation Authority (NRA), and only five of these reactors have been restarted.

With regard to 19 nuclear reactors including those at Tokyo Electric Power Co. Holdings, Inc.'s Fukushima No. 2 Power Plant, no applications to restart operations have been made.

As a result of the Fukushima nuclear disaster in 2011, regulatory standards regarding nuclear power plants have been made stricter, and therefore safety measure costs have increased considerably.

Consequently, electric power companies are hesitant about applying to restart reactors as they are trying to determine the costs involved in restarting aging power plants.

Commenting on the plan to decommission the No. 1 and No. 2 reactors at the Oi Nuclear Power Plant, a senior official at the Ministry of Economy, Trade and Industry said, "The decommissioning of aging nuclear plants is within our range of expectation."

However, if there are additional cases of plants that have exceeded the 40-year operation limit being decommissioned instead of extended, it will be difficult for the government to achieve its power supply framework target set out for fiscal 2030.

Currently, the economy ministry is working on amendments to its basic energy plan.

However, if we assume that the decommissioning of dilapidated plants will be accelerated, then the government's response will be undoubtedly watched carefully.

Will the government lower its nuclear power targets for fiscal 2030, or will it approve the construction of new and replacement power plants instead?

Kobe Steel

October 17, 2017

Source : Simply Info

<http://www.fukuleaks.org/web/?p=16469>

Kobe Steel Scandal May Hit Fukushima Daiichi Fuel Casks, Incinerator

October 17, 2017 Nancy Foust

A data falsification scandal hit Japan's Kobe Steel in recent weeks. The company admitted widespread falsification of data related to quality control in metals products provided to various customers. Kobe cited a set of copper pipes provided to TEPCO for Fukushima Daiichi as being among of the questionable parts. TEPCO claimed the parts were never actually used. Another report cited the non-used pipes were actually delivered to Fukushima Daiichi.

Back in 2013 Kobe Steel provided 19 spent fuel storage casks to Fukushima Daiichi. These were used to remove spent fuel from the common pool and then store it in temporary storage facilities up on the hill at the disaster site. While Kobe hasn't come out to the press and explicitly admitted these casks were part of

the data falsification scandal, the company is now admitting it was commonplace and went back decades. We currently do not know the total number of casks Kobe Steel has provided to Fukushima Daiichi.

If these casks potentially have sub standard steel in them or flawed production practices this could be a considerable problem at the disaster site. If the casks are found now or later on to have structural integrity problems that could lead to cracking or leaks. This would be a very serious risk to safety anywhere near the casks. The concept of dry cask fuel storage is inherently dependent on the integrity of the cask to keep anyone nearby safe and to prevent a dangerous deadly high radiation field.

We are continuing to look to see how many more casks Kobe Steel may have provided to Fukushima Daiichi before or after the disaster. If even the 19 casks already identified need to be pulled out of storage, brought to the common pool, inspected and potentially replaced, this could significantly delay spent fuel removal from the reactors.

Workers and work space related to the spent fuel management are limited. Space in the common pool was expanded in recent years by moving some of the stored fuel in that facility to dry cask storage up on the hill. Requiring that fuel to be brought back to the common pool would cause more storage space to be used. The cask handling area for the common pool is somewhat limited. This area is where each cask would need to be unloaded then inspected in detail to determine any problems with the cask or to facilitate moving the fuel to new storage casks.

Kobe Steel's construction & fabrication company built the radioactive waste incinerator now in operation at Fukushima Daiichi. So far no admission of the incinerator being involved in the scandal has been explicitly admitted. The facility was recently constructed and went online last year.

If these products provided to Fukushima Daiichi are found to be involved in the falsification scandal it would create problems for the safety oversight of these systems and potential delays as equipment is inspected and possibly replaced. Other safety related systems could potentially be impacted. As of now we do not have other systems at the site that have been identified as being provided by Kobe Steel but they are a key supplier to the nuclear industry in Japan.

This article would not be possible without the extensive efforts of the SimplyInfo research team
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October 14 2017 12:34 AM

As Kobe Steel crisis deepens, cheating engulfs 500 firms

<http://www.gulf-times.com/story/567315/As-Kobe-Steel-crisis-deepens-cheating-engulfs-500->
The cheating crisis engulfing Kobe Steel Ltd just got bigger.

Chief executive Hiroya Kawasaki yesterday revealed that about 500 companies had received its falsely certified products, more than double its earlier count, confirming widespread wrongdoing at the steelmaker that has sent a chill along global supply chains.

The scale of the misconduct at Japan's third-largest steelmaker pummelled its shares as investors, worried about the financial impact and legal fallout, wiped about \$1.8bn off its market value this week.

As the company revealed tampering of more products, the crisis has rippled through supply chains across the world in a body blow to Japan's reputation as a high-quality manufacturing destination.

A contrite Kawasaki told a briefing the firm plans to pay customers' costs for any affected products.

"There has been no specific requests, but we are prepared to shoulder such costs after consultations," he said, adding the products with tampered documentation account for about 4% of the sales in the affected businesses.

Yoshihiko Katsukawa, a managing executive officer, told reporters that 500 companies were now known to be affected by the tampering.

Kobe Steel initially said 200 firms were affected when it admitted at the weekend it had falsified data about the quality of aluminium and copper products used in cars, aircraft, space rockets and defence equipment.

Asked if he plans to step down, Kawasaki said: "My biggest task right now is to help our customers make safety checks and to craft prevention measures."

Boeing Co, has some of the falsely certified products, a source with knowledge of the matter told Reuters, while stressing that the world's biggest maker of passenger jets does not consider the issue a safety problem.

More than 30 non-Japanese customers had been affected by the firm's data fabrication, the Nikkei newspaper reported yesterday.

A Kobe Steel spokesman said the companies received its products but would not confirm they had any of the falsely certified components.

Nuclear power plant parts are the latest to join the list of affected equipment as Fukushima nuclear operator Tokyo Electric Power (Tepco) said yesterday it had taken delivery of pipes from Kobe Steel that were not checked properly.

The pipes were delivered to its Fukushima Daini station, located near the destroyed Fukushima Daiichi plant, but have not been used, Tepco said, adding it was checking all its facilities.

Faulty parts have also been found in Japan's famous bullet trains that run at speeds as high as around 300 kilometres (180 miles) per hour and a space rocket that was launched in Japan earlier this week.

One bullet train operator has already said it will seek compensation from Kobe Steel.

The government has ordered Kobe Steel to address safety concerns within about two weeks and report on how the misconduct occurred in a month.

No safety issues have yet been identified in the unfolding imbroglio.

Kobe Steel shares fell nearly 9% yesterday and have fallen more than 40% since the scandal broke.

The steelmaker faces a range of legal risks, including compensation sought by clients or their customers, penalties for violating unfair competition laws for false representation, shareholder lawsuits for the fall in the company's stock price and class lawsuits from overseas customers seeking punitive damages, a lawyer, specialising in corporate laws and risk management, said.

"It is hard to predict the extent of legal costs," said Motokazu Endo, a lawyer at Tokyo Kasumigaseki law office.

"We cannot rule out the possibility that this will shake Kobe Steel to its foundation." The company has forecast a profit for the year through March 2018 after two successive annual losses.

Kobe Steel was founded in 1905 and has been a pillar of Japan's manufacturing sector.

Such are its establishment bona fides that Shinzo Abe, the prime minister and scion of a political dynasty, worked at the company decades ago, before entering politics.

But those credentials have been shattered, a point amplified by CEO Kawasaki who earlier said the credibility of the firm "has plunged to zero."

Kobe Steel said it was examining possible data falsification going back 10 years – a familiar echo of a string of other cheating scandals involving Japan Inc.

The corrosive business practices have raised broader questions over corporate governance in Japan, and cast doubt on the integrity of a manufacturing industry once the envy of the world.

Previous cases in Japan involving falsified data included Nissan Motor, Mitsubishi Motors and Takata Corp, which filed for bankruptcy this year over faulty airbags that were blamed for 17 deaths and scores of injuries.

In 2015, it was revealed that Toyo Tire & Rubber fabricated data to secure government approval for materials to absorb shocks from earthquakes.

Conglomerate Toshiba Corp is still battling the fallout of a scandal over reporting inflated profits.

SMBC Nikko Securities said in a note to clients that investors in Kobe Steel face a prolonged period of uncertainty.

"It will likely continue to be extremely difficult to make judgements on creditworthiness and investment

until the safety of the products and the extent of damages are clarified.”

AREVA and its Japanese partner Kobe Steel deliver the first dry storage casks for spent fuels of Fukushima Daiichi nuclear power plant

<http://www.new.areva.com/EN/news-9720/areva-and-its-japanese-partner-kobe-steel-deliver-the-first-dry-storage-casks-for-spent-fuels-of-fukushima-daiichi-nuclear-power-plant.html>

Press Release

Storage casks / Fukushima Daiichi

March 04, 2013

TransNuclear Ltd., a joint-venture between AREVA and Kobe Steel Ltd., has just delivered to Tokyo Electric Power Co., Ltd (TEPCO) the first three metallic casks for the dry storage of spent fuels stored in the common pool of Fukushima Daiichi nuclear power plant.

TEPCO plans to transfer the spent fuels currently stored in the spent fuel pools of damaged units 1 to 4 to the common pool which did not suffer damages after March 11th events. This transfer will be made possible thanks to the loading of a number of spent fuels from the common pool into the dry storage casks delivered by TransNuclear Ltd. These casks will then be stored by TEPCO in the cask temporary storage facilities under construction on the site of Fukushima Daiichi nuclear power plant.

The order from TEPCO consists of 11 casks in which a total of 452 spent fuels can be stored. Eight other casks will be delivered to TEPCO in the coming weeks. These deliveries are an important step in the decommissioning process of the Fukushima Daiichi nuclear power plant.

These casks can withstand major natural disasters as proven by the nine similar casks used by TEPCO on the Fukushima Daiichi nuclear power plant site at the time of the March 11th events. This is a new illustration of the very high safety level of the solutions proposed by AREVA to its customers.

With an experience of nearly 50 years, AREVA provides high-performance solutions for interim storage of nuclear materials while guaranteeing the highest level of safety. AREVA is the worldwide reference and the leader of the interim storage market.

About TransNuclear Tokyo Ltd.:

TransNuclear Tokyo Ltd., a joint venture between TN International (AREVA) and Kobe Steel Ltd., is specialized in the supply of casks and transport services for nuclear material and has become a reference in Japan for spent fuel transport and interim storage.

About Kobe Steel Ltd.:

The Kobe Steel Group is one of Japan's leading manufacturers of materials and machinery. Its machinery businesses include industrial and construction machinery, engineering and environmental solutions. Kobe Steel is putting its manufacturing expertise to work in the nuclear power field by developing “Only One” high-end, original products that make a positive contribution to global society.

Fukushima Governor explains to Brazilians about recovery

October 22, 2017

Governor promotes Fukushima's recovery in Brazil

https://www3.nhk.or.jp/nhkworld/en/news/20171022_11/

The governor of Japan's Fukushima Prefecture has explained to people in Brazil to what extent his prefecture has recovered from the 2011 nuclear accident.

Masao Uchibori held a seminar in the Latin American nation's largest city of Sao Paulo on Saturday. Ninety people attended, including Japanese-Brazilians and locals.

Uchibori said monitoring checks and other measures are in place to ensure the safety of food produced in Fukushima. He said rice and sea fish are safe to eat, as their radiation levels have been below safety standards for two consecutive years.

The governor added that Fukushima's food exports once dropped, but have since been steadily increasing.

Uchibori noted that more than 54,000 people are still living in temporary housing.

He said Fukushima continues to launch various projects with the goal of becoming a prefecture not dependent on nuclear power.

Uchibori said that, to that end, his prefecture has been exchanging technology with such countries as Denmark and Germany, and advancing the development of renewable energy.

A Brazilian participant said he had wanted to know how Fukushima is coping and that he was surprised to learn how hard people in Fukushima have been working.

The event took place at a facility established under the "Japan House" project initiated by the Japanese government to introduce the country's culture overseas.

Uchibori arrived in Brazil on Friday to attend a ceremony marking the centenary of a group of Japanese-Brazilians who emigrated from Fukushima to Brazil before World War Two.

Compensation ruling appealed from both sides

October 23, 2017

Both sides appeal Fukushima compensation ruling

https://www3.nhk.or.jp/nhkworld/en/news/20171023_25/

Japan's government and Tokyo Electric Power Company have appealed a ruling that had ordered them to pay compensation to people affected by the 2011 accident at the Fukushima Daiichi nuclear plant. The plaintiffs have also appealed, saying the amount is inadequate and some areas are not covered in the ruling.

About 3,800 people filed a lawsuit in 2013, claiming they lost their livelihood and suffered mental distress after the 2011 disaster.

The Fukushima District Court earlier this month ordered the government and the utility to pay more than 4.3 million dollars to about 2,900 of the plaintiffs.

On Monday, the government and the power company appealed the ruling with a higher court. All the original plaintiffs also appealed.

In 2 other similar cases, both sides of the plaintiffs and the defendants have appealed lower court rulings. In one, a lower court acknowledged the government's responsibility.

"Kobe Steel's nuclear tentacles"

Kobe Steel's nuclear tentacles

The steelmaker is embroiled in the early days of disclosing it falsified steel manufacturing data for a vast range of products, and nuclear power plants were among its customers

<http://www.atimes.com/article/nuclear-tentacles-kobe-steel/>

By Shaun Burnie October 30, 2017 7:54 PM (UTC+8)

The global nuclear industry developed over the past fifty years dependent upon vast quantities of steel components supplied by a relatively small number of specialized manufacturers. One of them is Kobe Steel Ltd.

The steelmaker, a pillar of corporate Japan, is embroiled in the early days of disclosure of falsification of steel manufacturing data that extends to products used in planes and trains, to motor vehicles and spacecraft. And nuclear power plants.

Kobe Steel and its broad collection of subsidiaries have supplied products to the nuclear industry both in Japan and around the world since the 1960's.

It's a fair bet that every one of the 60 nuclear reactors operated in Japan since 1966 had some component supplied by Kobe Steel.

(Please click here for a report showing the Kobe Steel Group's supply chain to the nuclear power industry.)

Steel is used in the nuclear reactor core, lining and pressure vessel, cooling systems, steam generators and condensers, thousands of meters of pipe work and prestressed steel concrete containment tendons.

Obviously, because of the public health risk from radiation leaks, the steel was supposedly manufactured to specific, high standards.

Over the decades, a trickle of stories have appeared in the media disclosing that the steel supplied to nuclear plants did not quite match up to standards claimed by the industry.

On occasion there were accidents that were linked to faulty manufacturing and inspection (or no inspection).

In 2004 in the Mihama-3 reactor in western Japan a major pipe failure in the steam condensate system killed five workers. The pipe work had not been inspected since it was installed 28 years earlier.

The brewing Kobe Steel scandal has introduced the world to the Japanese term *tokusai*, which translates as shipping products that did not meet customer specifications.

Apparently, this practise of *tokusai* had become so institutionalized over decades at Kobe Steel companies that it became "essentially a tacit fraud manual," according to the Nikkei business newspaper.

Of course, faulty parts in a car, train or aircraft could have severe consequences on safety, so for good reason Toyota Motor, Japan Railways, Boeing and the other 500 major customers of Kobe Steel are reviewing the steel they received.

Even if there are no major safety issues, they are likely to replace those parts. That will not be the approach of the nuclear industry.

The components we are talking about inside Japan's nuclear reactors include steel and copper pipework that guarantees the cooling of the reactor core, including in emergencies.

Failure or rupture of these components could cause a severe accident and lead to a reactor meltdown.

It has been disclosed that Shinko Metal Products (owned by Kobe Steel) supplied tubing for Tokyo Electric Power Co.'s Fukushima Daini nuclear plant that failed had not gone through the correct quality inspection. (Note: the Fukushima Daini facility is the sister plant to Fukushima Daiichi that suffered three reactor meltdowns in the March 2011 earthquake and tsunami in Japan.)

As a result, Japan's Nuclear Regulation Authority (NRA) and Ministry of Economy Trade and Industry has jumped into action – sort of.

Nuclear power companies across the nation were asked to provide details of Kobe Steel products supplied to their reactors within two weeks, and a meeting will take place 9th November between the NRA and the nuclear industry.

Kobe Steel production also extends to joint ventures with Areva of France for the global supply of casks to contain nuclear spent fuel (they have the contract for Tokyo Electric's destroyed Fukushima Daiichi plant), as well as the nuclear fuel industry.

This steel supply includes the Rokkasho-mura plutonium reprocessing plant in Aomori prefecture, in northern Japan.

Just this month, the Rokkasho plant's owner, Japan Nuclear Fuel Ltd. (JNFL), admitted that it had violated safety rules at its site by fabricating records to say safety checks had been carried out when in reality none had been conducted since construction was completed over a decade ago.

On October 26th it was announced by JNFL that machine parts for its large uranium enrichment plant at Rokkasho had not been correctly inspected by the supplier – Kobe Steel.

We have been here before.

French reactor steel scandal

In 2015 it was disclosed that major components in reactor steam generators manufactured by Areva's le Creusot plant were under investigation by the French regulator due to evidence of below specification toughness caused by high carbon content in the forged steel.

Initially downplayed by the national regulator and Areva, critics continued to push for a more stringent investigation.

In September 2015, the release of an independent evaluation conducted by Large and Associates – a UK-based engineering firm – at the request of Greenpeace really blew the doors open.

"The nature of the flaw in the steel, an excess of carbon, reduces steel toughness and renders the components vulnerable to fast fracture," said the report's author, John Large.

Further investigations extended to steam generator parts supplied by Japan Casting and Forging Company (JCFC) and Japan Steel Works (JSW) and installed in thirteen French nuclear reactors.

Centering in particular on JCFC supply, where failure to meet regulatory requirements even exceeded those at the Areva plant, 12 reactors in France with JCFC steel components in the steam generators were ordered shut down for physical inspections.

The regulator was not willing to rely only on manufacturing records from the French steel supplier to demonstrate safety. Not least because those records showed multiple cases of data manipulation and fraud.

While those criminal investigations are working their way through the courts in Paris, Areva, the owner of the le Creusot steel plant, is ploughing through millions of pages of production documentation stretching back fifty years.

Hundreds of staff have been employed to review the data and it's practically guaranteed they will find multiple examples of falsification and safety violations.

Meanwhile in Japan, the parallel investigation overseen by a handful of technicians at the NRA lasted a matter of weeks.

The Japanese utilities were ordered to supply a list of the suppliers of steam generator and pressure vessel components.

JSW, JCFC and JFE Holdings (which also has joint ventures with Kobe Steel) provided brief explanations as to why their components could not have the same reduced toughness as the very same components supplied to France.

Despite clear evidence of flaws in the steel forging process of JCFC, JSW and JFE, the NRA accepted their assurances and that was that.

No explanation as to how products that were below specification passed certification and were shipped from Japan to France, no review of the raw data and certainly no physical inspections at Japanese reactors. The supply chain of the Japanese and global nuclear industry has many opaque tentacles, but they all lead back to a relatively few large companies. The nuclear industry operates in a global atomic supermarket with weak or non-existent regulatory oversight.

The five reactors now permitted to operate in Japan all have components supplied by one or more of these companies, as do reactors scheduled to resume operation in the next six months.

If we are to avoid a repetition of the carbon steel scandal in France, the NRA will have to decide that this is so serious that business as usual is not an option.

There is however no prospect of this. The NRA has neither the will nor the human resources or skill set to thoroughly investigate the supply chain of Kobe Steel – even if it were possible.

The chances that detailed production data for components installed in reactors in the 1970's and 1980's even exist or can be relied upon are near zero.

Instead the NRA will rely on the customers to provide lists of components and for Kobe Steel to provide analysis that the products are safe.

Unlike the aviation and car industries, which are likely to replace the suspect Kobe Steel components, the nuclear industry will decide that it's not in their interests to provide credible assurance of safety to the public by replacement.

Further, whereas replacing suspension springs in a car or landing gear on an aircraft is relatively easy, no such option exists for nuclear reactors.

Many of the tens of thousands of components supplied by Kobe Steel are embedded deep in the heart of the nuclear reactors, even inspecting them is challenging and in some cases impossible.

Dismantling the nuclear reactors to get access would effectively terminate the plant given the scale of the undertaking and costs involved.

While the blame for this latest scandal lies at Kobe Steel, the root causes of poor production standards and oversight within the nuclear industry are to be found within the utilities themselves and the national regulators.

Complacency over standards and disregard for safety, endemic since the birth of the industry, have not evaporated as a result of nuclear disasters such as Chernobyl or Fukushima.

If anything the industry is more entrenched in its ways than ever before, not least because it is fighting for its very survival.

Regulators, under political pressure to bend to industry demands, and equally complicit in decades of applying weak and inadequate oversight while looking the other way, are rarely interested to probe too deeply, no doubt wishing to avoid confirming what they suspect or know already.

The Kobe Steel scandal is an enormous blow to the embattled reputation of corporate Japan with justified calls for fundamental reform. But it could be a lot worse with not just car and aircraft passengers at risk, but entire regions of Japan under the increased threat of nuclear reactor accident.

Not to mention the hazards from reactors worldwide using potentially suspect Kobe Steel components.

The supply chain of the Japanese and global nuclear industry has many opaque tentacles, but they all lead back to a relatively few large companies. The nuclear industry operates in global atomic supermarket with weak or non-existent regulatory oversight.

Opening up the industry to robust and transparent investigation would threaten to completely derail the already slim prospects of Japanese government plans to restart more nuclear power plants and further damage the embattled nuclear power industry globally.

The industry and regulators will do all they can to prevent that from happening. The only practical and safe alternative solution is for a Japanese zero nuclear policy and a rapid transition to renewables.

Shaun Burnie, sburnie@greenpeace.org is a senior nuclear specialist, Greenpeace Germany. In 2015-2016 he coordinated investigations into steel manufacturing failures at le Creusot, JCFC and JSW in Japan, and has worked on Japanese nuclear policy for nearly thirty years.

Where is the truth?

November 2, 2017

North Korea dismisses as ‘misinformation’ Japanese report that scores died in nuclear test site accident

<https://www.japantimes.co.jp/news/2017/11/02/asia-pacific/north-korea-dismisses-misinformation-japanese-report-scores-died-nuclear-test-site-accident/#.WftqnnADOos>

by Jesse Johnson

Staff Writer

North Korea lashed out at Japan on Thursday, dismissing as “misinformation” a report earlier this week that more than 200 people were feared dead after a tunnel collapse at the North’s main nuclear test site following the country’s sixth atomic test in early September.

Japan’s TV Asahi, citing unnamed sources in the isolated country, reported Tuesday that the accident at the Punggye-ri test site had killed scores around Sept. 10. The Japan Times could not independently confirm the report, but North Korea rarely acknowledges major accidents, and any incident related to its nuclear program would be especially taboo.

The North’s Korean Central News Agency claimed in a commentary Thursday that Japanese authorities had given their blessing to the report as part of a bid “to secure a pretext for sending the Japan ‘Self-Defense Forces’ into the Korean peninsula on their own initiative by building up the public opinion over [the] ‘nuclear threat’ from the DPRK.”

The commentary went on to urge “Japanese reactionaries” to “clearly understand the strategic position of the DPRK which has reached the highest stage, and face up to the situation and should refrain from going reckless by citing the DPRK as a pretext.”

It went on to threaten not only the Japanese government, but TV Asahi, as well.

“If catastrophic consequences beyond imagination are entailed by the shower of retaliatory fire, the TV Asahi will also be made to pay a dear price for its sordid act as it resorts to smear campaign.”

Experts have warned that the nuclear-armed country’s atomic tests at the Punggye-ri site, including its sixth and most powerful explosion — which Tokyo estimated had an explosive yield of 160 kilotons, more than 10 times the size of the Hiroshima bomb — may have destabilized the area and that it may not be usable for future tests.

The United States, Japan and others have urged North Korea to dismantle its nuclear weapons program, but the demand has fallen on deaf ears in Pyongyang, where leader Kim Jong Un has vowed to never give up his arsenal, calling it a “treasured sword” meant to protect the country from aggression.

Backpedalling or a success?

November 3, 2017

Japan’s adjusted anti-nuke resolution mirrors reality of security situation, U.S. envoy says

<https://www.japantimes.co.jp/news/2017/11/03/national/politics-diplomacy/japans-adjusted-anti-nuke-resolution-mirrors-reality-security-situation-u-s-envoy-says/#.Wfw28XaDOos>

Kyodo

NEW YORK – Japan’s recently adopted U.N. resolution calling for the total elimination of nuclear weapons better reflects today’s security concerns than previous versions, U.S. disarmament ambassador Robert Wood said Thursday.

“A majority of countries felt that that resolution reflected and was a snapshot of where we are today, what the threats are, and frankly, what the international community needs to do,” he told reporters at New York’s Foreign Press Center.

Wood said the adoption of the Japan-led resolution was a “big success,” despite criticism aimed at Tokyo by numerous countries for apparently backpedaling on nuclear disarmament when it came to the language used in the resolution.

A United Nations committee passed the annual resolution last week, but with significantly less support than in years past. It drew support from 144 countries, down 23 from last year.

Wood said it garnered support because it had a “strong condemnation of North Korea” for its nuclear and ballistic missile programs.

Pyongyang has raised alarm bells by conducting a spate of ballistic missile tests, as well as carrying out its sixth and largest underground nuclear test in September, prompting the U.N. Security Council to issue its most stringent sanctions resolution yet.

Additionally, Wood said the backing shows a “growing understanding that future disarmament has to be conditions-based, meaning that you can’t divorce nuclear disarmament from the prevailing security environment.”

In addition to touching upon the threats from the Korean Peninsula, he spoke of other global uncertainties posed by precarious situations in the Middle East, and by the actions of Russia and China, particularly in the South China Sea.

Against this backdrop, Wood also took aim at those who supported a U.N. treaty outlawing nuclear weapons that was adopted in July.

The treaty’s proponents have long been frustrated by what they see as inadequate efforts by the nuclear weapons states — Britain, China, France, Russia and the United States — to reduce their nuclear arsenals despite having signed onto the Nuclear Non-proliferation Treaty.

In addition to the five countries, Japan and other nations operating under the nuclear umbrella for security reasons, do not support the ban treaty and are currently unlikely to do so.

Wood described how ban supporters are operating in a “parallel universe,” and claimed that due to their stance, “they have basically said nuclear deterrence is obsolete.”

He said “the conditions are not ripe for nuclear disarmament at this point,” citing the increasing security threats, adding, “This ban treaty has been extremely divisive and it has no practical impact on nuclear disarmament.”

The Japan-led resolution will be put to a vote before a plenary session in the General Assembly in December. The resolution has been put forward for 24 years in a row.

Our children are being used

November 13, 2017

Nuclear School Quandary (NHK video)

<https://www3.nhk.or.jp/nhkworld/en/news/videos/20171113152405093/>

litate is trying to get people back (through their children)

The authorities will offer a brand-new school, free meals, individual tuition etc. (the interim one will close so people have to choose where the children will go)

It is a dilemma for the parents (a local survey says only 90 children will join the new school 343 will not)

"The children are being held hostages for the construction (of the school)", says one parent.

Diverting decommissioning funds

November 17, 2017

Japan Atomic Power in dire straits after diverting funds

<http://www.asahi.com/ajw/articles/AJ201711170054.html>

By TSUNEO SASAI/ Staff Writer

Japan Atomic Power Co. has diverted so much of its decommissioning funds to build new reactors that it now lacks enough cash to scrap its aging units or even resume operations of existing ones.

The problem-plagued company is banking on a decision by the Nuclear Regulation Authority, but even that might not be sufficient to save it financially.

The Ministry of Economy, Trade and Industry requires nuclear power plant operators to accumulate decommissioning funds every year based on their estimated costs to scrap reactors.

The ministry's guidelines, however, do not prohibit the companies from temporarily using the accumulated money for other purposes.

According to calculations, Japan Atomic Power should have saved around 180 billion yen (\$1.6 billion) to decommission its four nuclear reactors.

The company declined to give details about how much of decommissioning fund was used for other purposes.

However, a person familiar with the situation said the operator "diverted the majority."

That leaves Japan Atomic Power without the necessary funds to carry out its plans to decommission its one-reactor Tokai nuclear plant in Ibaraki Prefecture, and the No. 1 reactor at its Tsuruga nuclear plant in Fukui Prefecture.

The company's two other reactors--the reactor at the Tokai No. 2 nuclear plant and the No. 2 reactor at the Tsuruga plant--are off-line.

To survive the financial crunch, Japan Atomic Power will soon apply to the NRA to extend the operating life of the idled Tokai No. 2 nuclear plant reactor.

That reactor will reach its 40th year of operation in November 2018.

Even if the NRA approves the 20-year extension, the company does not have the 174 billion yen needed to improve safety measures at the reactor to bring it online.

An active geological fault line was found running directly beneath the No. 2 reactor building at the Tsuruga nuclear plant, meaning a resumption of reactor operations there is nowhere in sight.

Japan Atomic Power decided to use decommissioning funds to cover costs to build the Tsuruga No. 3 and No. 4 reactors in a bid to curb borrowing from financial institutions, according to several sources.

However, that decision was made before disaster struck at the Fukushima No. 1 nuclear power plant in March 2011.

After the triple meltdown at the Fukushima plant, all reactors in the nation, including those of Japan Atomic Power, were suspended.

With its reactors offline and its revenue drying up, Japan Atomic Power continued diverting money from the decommissioning fund to cover its losses.

A Japan Atomic Power official told The Asahi Shimbun that the diversion of funds was not a problem because the operator "used the money appropriately in light of various circumstances and future forecasts."

However, the company's plight has officials in the economy ministry considering imposing limits on diverting decommissioning funds. With deregulations in the electric power industry moving forward, the risk of a sudden collapse of an electric power utility has increased.

With all of its reactors off-line, Japan Atomic Power would find it difficult to obtain loans from financial institutions.

In addition, residents around its nuclear facilities could oppose any restarts in light of the company's inability to prepare sufficient safety expenses.

Japan Atomic Power had only 18.7 billion yen on hand at the end of March for immediate use in an emergency.

If the company is forced to decommission its Tokai No. 2 nuclear power plant, the finances of other major electric companies would be affected.

To provide financing for Japan Atomic Power, financial institutes set certain loan conditions, one of which requires the company to be guaranteed by a major utility.

Tokyo Electric Power Co., which hold shares in Japan Atomic Power, has come under fire over the disaster at its Fukushima No. 1 plant. **Public criticism would certainly erupt if TEPCO, which is funded by the government, were to support a bailout of Japan Atomic Power.**

A source with TEPCO described Japan Atomic Power's situation as: "Stuck between a rock and a hard place."

US hoping to deploy nukes in Japan in 1960s (secret document)

November 19, 2017

Documents show U.S. mulled requesting deployment of nuclear weapons to Japan in 1960s

<https://www.japantimes.co.jp/news/2017/11/19/national/history/documents-show-u-s-mulled-requesting-deployment-nuclear-weapons-japan-1960s/#.WhGupnmDOos>

Kyodo

WASHINGTON – **The U.S. government weighed its chances of convincing Tokyo in the late 1960s to allow the deployment of nuclear weapons in Japan if an East Asia crisis broke out,** declassified documents showed Sunday.

The idea, which was never proposed because it was apparently considered to have a "very slight" chance of being accepted, offers a look into how Washington sought to expand its military footprint in the region after World War II and the Korean War.

The atomic bombings of Hiroshima and Nagasaki had left the Japanese public with a strong aversion to nuclear weapons, with the prohibition of the possession, manufacture and introduction into Japanese territory of the weapons — first outlined in 1967 — coming to form the core of Japan's nuclear policy.

The documents, dated June 26, 1969, are comprised of drafts of a joint communique by then-President Richard Nixon and Prime Minister Eisaku Sato.

The documents outlined the role of the U.S. military after the return of Okinawa to Japanese administration in 1972.

One of the drafts noted that if the two countries agreed that a “state of emergency existed in East Asia threatening imminent armed attack” on Japan, steps would be taken to “enable the U.S. forces in Japan to introduce the necessary forces and equipment to meet the danger.”

While the two countries eventually made a secret agreement allowing the introduction of nuclear weapons to the southern islands even after the handover, the documents reveal for the first time the U.S. government’s desire to locate part of its nuclear arsenal on Honshu, according to Masaaki Gabe, a professor at the University of the Ryukyus in Okinawa.

The draft, written by the U.S. State Department, is labeled as “including all of the points desired by the U.S. . . . whose chance of full acceptance by the GOJ (government of Japan) is very slight.”

Gabe obtained the previously top secret documents from the U.S. National Archives.

The documents also include a separate draft of the joint communique that the State Department saw as “possibly more acceptable” to Japan.

That draft included a secret agreement that should a crisis arise in the region, Japan’s foreign minister will promise to give “prompt and sympathetic consideration” to consent to requests to deploy the U.S. military on the mainland via the U.S. ambassador to Japan.

Under the agreement, U.S. forces would also be allowed to conduct military operations out of Japan if an emergency arose on the Korean Peninsula or in Taiwan without prior consultation with Tokyo, which it is obligated to do under the Japan-U.S. security treaty.

20-year extension requested for Tokai No.2

November 22, 2017

Nuclear plant operator to request 20-year extension for 'boiling water reactor'

<https://mainichi.jp/english/articles/20171122/p2a/00m/0na/005000c>

The halted Tokai No. 2 Power Station in Tokai, Ibaraki Prefecture, is seen from a Mainichi helicopter on March 4, 2017. (Mainichi)

The Japan Atomic Power Co. (JAPC) will submit a request to the Nuclear Regulation Authority (NRA) to extend the operating period of a nuclear reactor for another 20 years, it disclosed on Nov. 21.

- **【Related】** Japan to require new cooling system for boiling water reactors
- **【Related】** Nuclear regulator does dizzying U-turn on TEPCO reactor restart plans
- **【Related】** TEPCO's Niigata nuclear plant set to clear screening to restart reactors

As of next year, the company's Tokai No. 2 Power Station in Tokai, Ibaraki Prefecture, will have been in operation for 40 years. While this will make the fourth extension request made to the NRA for reactors following three made by Kansai Electric Power Co., this marks the first time a request has been made for a "boiling water reactor" -- the same type used by Tokyo Electric Power Co.'s ill-fated Fukushima No. 1 Nuclear Power Plant.

JAPC President Mamoru Muramatsu visited the Ibaraki Prefectural Government and the Tokai Municipal Government on Nov. 21, conveying his plan to submit the request to the NRA on Nov. 24 to Ibaraki Gov. Kazuhiko Oigawa and Tokai Mayor Osamu Yamada.

Under the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors revised after the 2011 Fukushima nuclear disaster, the operation period of reactors is set in principle to 40 years from activation, but can be extended a maximum of an additional 20 years with approval from the NRA.

The company has already completed its application for the conformity review on the new regulatory requirements for nuclear power plants needed to restart the reactor, and the NRA is close to completing the review.

Twenty-year extension to be sought for aging Tokai No. 2 nuclear plant

<https://www.japantimes.co.jp/news/2017/11/22/national/20-year-extension-sought-aging-tokai-no-2-nuclear-plant/#.WhVZTHmDOot>

Kyodo, JIJI

MITO, IBARAKI PREF. – Japan Atomic Power Co. plans to file Friday an application with the Nuclear Regulation Authority seeking approval for a 20-year extension to the operational life of its aging Tokai No. 2 power station in Ibaraki Prefecture, the operator said Tuesday.

gains approval, the single-reactor plant, which is currently offline, will be the fourth nuclear facility in Japan to get a longer life span. In addition, it will be the first extension for a plant with a boiling-water reactor, the same type as the reactors at Tokyo Electric Power Company Holdings Inc.'s disaster-stricken Fukushima No. 1 nuclear plant.

In Japan, the operational limit of nuclear reactors is set at 40 years in principle, but the period can be extended by up to 20 years if the NRA gives its approval. The Tokai No. 2 plant will reach 40 years in operation next November.

While some nuclear plant operators have decided to decommission their aging reactors, Japan Atomic Power, which has no business other than nuclear power generation, cannot afford to retire the Tokai No. 2 for financial reasons.

The firm has already decided to dismantle Tokai Nuclear Power Plant, also in Ibaraki Prefecture, as well as unit No. 1 at the Tsuruga Power Station in Fukui Prefecture. Meanwhile, active faults were recently discovered underneath unit No. 2 at the Tsuruga station, which is also offline, clouding the prospects of its restart.

“Tokai No. 2 is critically important for our management,” Japan Atomic Power President Mamoru Muramatsu said Tuesday after holding separate meetings with Kazuhiko Oigawa, the governor of Ibaraki Prefecture, and Osamu Yamada, the mayor of the Ibaraki village of Tokai, on the same day where he informed them of the application plan.

Both the governor and the mayor stopped short of commenting on the advisability of reactivating the plant.

After meeting with Muramatsu, Oigawa told reporters that the prefectural government plans to conduct its own screening, while calling on the company to give adequate explanations to the people of the prefecture.

Yamada said he has confirmed with the Japan Atomic Power president that the application will not be directly linked to the proposed restart of the plant.

The 1.1-million-kilowatt Tokai No. 2 plant went into operation in November 1978, and was stopped after the March 2011 earthquake and tsunami that crippled the Fukushima No. 1 plant.

The NRA is expected to compile a report that will effectively give a green light for the resumption of the operations at the Tokai No. 2 plant, recognizing that it has met the stricter safety standards introduced after the March 2011 meltdowns.

To seek an extension of the operational period, Japan Atomic Power needs to submit a separate application to the NRA by Nov. 28, a year ahead of the 40-year limit.

With about 1 million people living within a 30-kilometer radius of the plant, however, it would not be easy for the company to gain support for the restart from related local governments, which are tasked with drawing up evacuation plans for the residents.

Raising the ¥174 billion needed for safety measures for the plant is another major challenge for the company.

Plant lifespan extension : "Equivalent to being irresponsible"

November 22, 2017

Concerns raised after utility announces plan for nuclear reactor lifespan extension

https://mainichi.jp/english/articles/20171122/p2a/00m/0na/020000c#cxrecs_s

MITO -- The announcement by the Japan Atomic Power Co. (JAPC) that the embattled nuclear power operator will apply for a 20-year extension of the 40-year operational lifespan for a reactor at its Tokai No. 2 Power Station in Ibaraki Prefecture has raised concerns from local residents.

- **【Related】** Nuclear plant operator to request 20-year extension for 'boiling water reactor'
- **【Related】** Japan to require new cooling system for boiling water reactors
- **【Related】** Nuclear regulator does dizzying U-turn on TEPCO reactor restart plans

The Tokai No. 2 plant hosts a "boiling water reactor," the same type as those at the Fukushima No. 1 Nuclear Power Plant that melted down in the wake of the 2011 disaster. While JAPC President Mamoru Muramatsu stresses that applying for the extension and reactivating the currently idled reactor at the power station are different issues, residents of the Ibaraki Prefecture village of Tokai, where the plant is located, are expressing concerns about the aging nuclear station.

In response to Muramatsu's briefing about the company's plan on Nov. 21, Ibaraki Gov. Kazuhiko Oigawa and Tokai Mayor Osamu Yamada said they would decide whether to give the green light to restarting the reactor after studying the screening results by the Nuclear Regulation Authority.

The JAPC's business is struggling as none of its nuclear plants are currently in operation. Its plan to restart the Tokai No. 2 station has also met with difficulties as the estimated costs to implement safety measures, such as anti-liquefaction work on coastal levees at the plant, have surged from the initial estimate of 78 billion yen to roughly 180 billion yen.

Former Tokai Mayor Tatsuya Murakami doubts the JAPC president's claim, pointing out that there is no way the utility will not restart the reactor while applying for the extension.

Furthermore, work to create **evacuation plans**, required for local governments located within 30 kilometers from a nuclear power plant, is facing serious challenges as some 1 million people live within a 30-kilometer range from the Tokai No. 2 station -- the largest population in the same area size from any nuclear plant in the country.

"To continue operating the nuclear plant in an abnormal location (with a population of 1 million within 30 kilometers) is disregarding residents. This is equivalent to being irresponsible," Murakami said.

Koshi Abe, a Tokai Village Assemblyman who is opposed to reactivating the Tokai nuclear plant, was wary of the utility's plan, saying that the restart will be carried out while local residents have no means of knowing what goes on behind closed doors.

Mika Tsubata, 46, another Tokai resident, expressed concerns, telling the Mainichi Shimbun, "I still remember the (2011) disaster. **It's scary for the same type of nuclear reactor (as the ones at the Fukushima plant) to be put into operation while the cause (of the meltdown) has not been determined.**"

Tokai 2: So many uncertainties

November 25, 2017

Prospect uncertain for Tokai No. 2 nuke plant restart despite extension application

<https://mainichi.jp/english/articles/20171125/p2a/00m/0na/012000>

Even as Tokai No. 2 nuclear plant operator Japan Atomic Power Co. seeks Nuclear Regulation Authority (NRA) permission to extend the life of the station's sole reactor by 20 years, there appears no prospect the plant can be restarted in the foreseeable future.

- **【Related】** Utility files application to extend operating period of Tokai nuclear reactor for 20 years
- **【Related】** Japan to require new cooling system for boiling water reactors

Japan Atomic is seeking to add to the reactor's 40-year operational lifespan in order to restart the plant in Tokai, Ibaraki Prefecture. However, the company has not determined how it can fund the massive cost of necessary safety upgrades, while it also remains to be seen if local governments around the plant will consent to reactivation.

The NRA estimates that safety measures, including the construction of a coastal levee to protect the plant from a massive tsunami, will cost the utility some 180 billion yen.

Additionally, terror countermeasures will cost the operator some 100 billion yen.

All of Japan Atomic's reactors are currently offline, and it is relying heavily on base fees from five major power companies with which the company has electric power sales contracts. Therefore, the firm cannot easily invest large sums in safety measures. The firm believes the Tokai No. 2 plant could be restarted

relatively easily, but if it is not, and the firm continues to have no electricity to sell, Japan Atomic's financial future will be in jeopardy.

To prevent this, Japan Atomic needs loan guarantees from other power companies so that it can borrow from banks the enormous amounts of cash needed to implement safety measures at the plant.

However, Japan Atomic's largest customer, Tokyo Electric Power Company (TEPCO) Holdings, Inc., is already on the hook for about 16 trillion yen to decommission the crippled Fukushima No. 1 nuclear plant and pay compensation to those affected by the nuclear disaster. TEPCO Holdings could come under fire from the public if it guaranteed loans for another company at the same time as TEPCO itself must cover the cost of dealing with the nuclear disaster.

Some TEPCO insiders point out that if the restart of the Tokai No. 2 plant was delayed, TEPCO's power purchase contract would not pay, and that any loan guarantees for Japan Atomic would also be highly risky.

Moreover, it remains unclear whether Japan Atomic can gain consent for reactivation from the local communities hosting the plant. The firm is holding talks with a consultative body comprising six municipalities within 30 kilometers of the Tokai No. 2 station to review their nuclear power plant safety agreement.

Japan Atomic offered to sign an agreement on Nov. 22 with all six municipalities, including Tokai, that would effectively give these local bodies the right to approve or disapprove the plant's reactivation.

Nuclear plant restarts since the outbreak of the Fukushima nuclear disaster have managed to gain consent from the local prefectural government as well as municipalities concerned. However, there is a possibility that local bodies in a broader area will require Japan Atomic to seek their approval for a Tokai No. 2 plant reactivation, depending on the content of the new agreement.

About 1 million people live within 30 kilometers of the Tokai No. 2 plant -- making it the most heavily populated such zone in the country. Local bodies in this zone are struggling to work out evacuation plans for local residents in case of a nuclear accident.

November 24, 2017

Utility files application to extend operating period of Tokai nuclear reactor for 20 years

The Japan Atomic Power Co. (JAPC) filed an application with the Nuclear Regulation Authority (NRA) on Nov. 24 for permission to extend the operating period of a nuclear reactor for 20 years beyond the 40-year limit.

- **【Related】** Nuclear plant operator to request 20-year extension for boiling water reactor
- **【Related】** Japan to require new cooling system for boiling water reactors
- **【Related】** TEPCO's Niigata nuclear plant set to clear screening to restart reactors

The reactor at JAPC's Tokai No. 2 Power Station in Tokai, Ibaraki Prefecture, is the fourth nuclear reactor for which a request for such an extension has been filed with the nuclear power regulator.

Kansai Electric Power Co. earlier applied with the NRA for permission for a 20-year extension of the operating periods for its Mihama nuclear plant's No. 3 reactor and No. 1 and 2 reactors at its Takahama power station, both in Fukui Prefecture, and the nuclear watchdog has approved the extension for all three units.

Moreover, the Tokai No. 2 plant's reactor is the only boiling water reactor -- the same type as those at the tsunami-ravaged Fukushima No. 1 plant -- for which a 20-year extension of the operating period is being sought.

The Tokai No. 2 atomic power station is set to reach the 40-year limit in November 2018.

Under the amended Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors, nuclear reactors must be decommissioned after being in operation for 40 years in principle. However, the operating period can be extended by up to 20 years as an exception if certain conditions are met.

And so the tanks remain



November 25, 2017

Still at a stalemate as Fukushima's radioactive water grows by 150 tons a day

https://www.japantimes.co.jp/news/2017/11/25/national/japan-stalemate-fukushima-radioactive-water-grows-150-tons-day/#.Whl_33mDOos

by Mari Yamaguchi

AP

ONAHAMA, FUKUSHIMA PREF. – More than six years after a tsunami overwhelmed the Fukushima No. 1 nuclear power plant, Japan has yet to reach consensus on what to do with a million tons of radioactive water, stored on site in around 900 large and densely packed tanks that could spill should another major earthquake or tsunami strike.

The stalemate is rooted in a fundamental conflict between science and human nature.

Experts advising the government have urged a gradual release to the Pacific Ocean.

Treatment has removed all the radioactive elements except tritium, which they say is safe in small amounts. Conversely, if the tanks break, their contents could slosh out in an uncontrolled way.

Local fishermen are balking. The water, no matter how clean, has a dirty image for consumers, they say. Despite repeated tests showing most types of fish caught off Fukushima are safe to eat, diners remain hesitant. The fishermen fear any release would sound the death knell for their nascent and still fragile recovery.

“People would shun Fukushima fish again as soon as the water is released,” said Fumio Haga, a drag-net fisherman from Iwaki, a city about 50 kilometers (30 miles) down the coast from the nuclear plant.

And so the tanks remain.

Fall is high season for saury and flounder, among Fukushima’s signature fish. It was once a busy time of year when coastal fishermen were out every morning.

Then came March 11, 2011. A magnitude 9 offshore earthquake triggered a tsunami that killed more than 18,000 people along the coast. The quake and massive flooding knocked out power for the cooling systems at the Fukushima nuclear plant. Three of the six reactors had partial meltdowns. Radiation spewed into the air, and highly contaminated water ran into the Pacific.

Today, only about half of the region’s 1,000 fishermen go out, and just twice a week because of reduced demand. They participate in a fish testing program.

Lab technicians mince fish samples at Onahama port in Iwaki, pack them in a cup for inspection and record details such as who caught the fish and where. Packaged fish sold at supermarkets carry official “safe” stickers.

Only three kinds of fish passed the test when the experiment began in mid-2012, 15 months after the tsunami. Over time, that number has increased to about 100.

The fish meet what is believed to be the world’s most stringent requirement: less than half the radioactive cesium level allowed under Japan’s national standard and one-twelfth of the U.S. or EU limit, said Yoshiharu Nemoto, a senior researcher at the Onahama testing station.

That message isn’t reaching consumers. A survey by the Consumer Affairs Agency in October found that nearly half of Japanese weren’t aware of the tests, and that consumers are more likely to focus on alarming information about possible health impacts in extreme cases, rather than facts about radiation and safety standards.

Fewer Japanese consumers shun fish and other foods from Fukushima than before, but 1 in 5 still do, according to the survey. The coastal catch of 2,000 tons last year was 8 percent of pre-disaster levels. The deep-sea catch was half of what it used to be, though scientists say there is no contamination risk that far out.

Naoya Sekiya, a University of Tokyo expert on disaster information and social psychology, said that the water from the nuclear plant shouldn’t be released until people are well-informed about the basic facts and psychologically ready.

“A release only based on scientific safety, without addressing the public’s concerns, cannot be tolerated in a democratic society,” he said. “A release when people are unprepared would only make things worse.”

He and consumer advocacy group representative Kikuko Tatsumi sit on a government expert panel that has been wrestling with the social impact of a release and what to do with the water for more than a year, with no sign of resolution.

Tatsumi said the stalemate may be further fueling public misconception: Many people believe the water is stored because it's not safe to release, and they think Fukushima fish is not available because it's not safe to eat.

The amount of radioactive water at Fukushima is still growing, by 150 tons a day.

The reactors are damaged beyond repair, but cooling water must be constantly pumped in to keep them from overheating. That water picks up radioactivity before leaking out of the damaged containment chambers and collecting in the basements.

There, the volume of contaminated water grows, because it mixes with groundwater that has seeped in through cracks in the reactor buildings. After treatment, 210 tons is reused as cooling water, and the remaining 150 tons is sent to tank storage. During heavy rains, the groundwater inflow increases significantly, adding to the volume.

The water is a costly headache for Tokyo Electric Power Company Holdings Inc., the utility that owns the plant. To reduce the flow, it has dug dozens of wells to pump out groundwater before it reaches the reactor buildings and built an underground "ice wall" of questionable effectiveness by partially freezing the ground around the reactors.

Another government panel recommended last year that the utility, known as Tepco, dilute the water up to about 50 times and release about 400 tons daily to the sea — a process that would take almost a decade to complete. Experts note that the release of tritiated water is allowed at other nuclear plants.

Tritiated water from the 1979 Three Mile Island accident in the United States was evaporated, but the amount was much smaller, and still required 10 years of preparation and three more years to complete.

A new chairman at Tepco, Takashi Kawamura, caused an uproar in the fishing community in April when he expressed support for moving ahead with the release of the water.

The company quickly backpedaled, and now says it has no plans for an immediate release and can keep storing water through 2020. Tepco says the decision should be made by the government, because the public doesn't trust the utility.

"Our recovery effort up until now would immediately collapse to zero if the water is released," Iwaki abalone farmer Yuichi Manome said.

Some experts have proposed moving the tanks to an intermediate storage area, or delaying the release until at least 2023, when half the tritium that was present at the time of the disaster will have disappeared naturally.

see also :

Risky stalemate as science battles human fears at Fukushima

<http://www.asahi.com/ajw/articles/AJ201711250021.html>

THE ASSOCIATED PRESS

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Under the facelift

November 25, 2017

Fukushima face-lift masks morass inside

<https://www.japantimes.co.jp/news/2017/11/25/national/fukushima-face-lift-masks-morass-inside/#.WhmDAHmDOos>

by Mari Yamaguchi

AP

OKUMA, FUKUSHIMA PREF. – Above ground, the tsunami-hit Fukushima nuclear power plant has had a major face-lift since the 2011 disaster. Inside and underground, a morass remains.

A stylish new office building was the first thing that came into view during a tour for foreign media last month. Another building has a cafeteria and a convenience store. It is easy to forget you are in the official no-go zone, where access is restricted.

We first went through automated security checks and radiation measurement at the new building, where 1,000 employees of Tokyo Electric Power Co.'s decommissioning unit work.

A sign prohibits games such as Pokemon Go.

Visitors no longer must put on hazmat suits and full-face charcoal-filter masks or plastic shoe covers unless they go to the most contaminated areas. We donned the gear for low-dose areas: a helmet, double socks, cotton gloves, surgical mask, goggles and a vest with a personal dosimeter.

There was little reminder of the devastation 6½ years ago. The highly contaminated debris and mangled vehicles are gone. The feeble-looking plastic hoses mended with tape and the outdoor power switchboard that rats got into — once causing a blackout — have been replaced with proper equipment.

A curved cover has been built over the Unit 3 reactor, whose roof was blown off, leaving a mess of girders, concrete and cables. A horizontal smudge high up on a nearby waste-storage building marks the height of the tsunami: 17 meters (56 feet).

The 900 huge tanks built to store a growing volume of radioactive water tower over visitors. A water management team monitored the contaminated water at what was once the crisis command center.

Strings of paper cranes still hang in the hallway to bring good fortune.

The tanks underscore the challenges that remain in the basements of the reactor buildings, where the water collects, and deep inside the three reactors that had meltdowns.

Remote-controlled robots provided a limited view of the melted fuel earlier this year, in areas where it is too dangerous for humans to go. The exact location of the fuel remains largely unknown. It was an early step in the still-uncertain, decadeslong plan to decommission the plant.

Time to decommission Tokai No.2!

November 24, 2017

EDITORIAL: Aging Tokai No. 2 nuclear plant should be decommissioned

<http://www.asahi.com/ajw/articles/AJ201711240017.html>

Japan Atomic Power Co.'s Tokai No. 2 nuclear power plant in Tokai, Ibaraki Prefecture, seems doomed to be decommissioned given the strong doubts and practical difficulties surrounding the company's plan to restart the reactor at the plant.

Japan Atomic Power plans to apply to the Nuclear Regulation Authority to extend the operating life of the idled reactor at the plant beyond the legal life span of 40 years in principle.

The currently offline reactor will reach the end of its legal life span in one year. The operator is seeking to persuade the NRA to make an exception of the reactor for bringing it back on line.

It has been estimated that the required safety measures will cost the company at least 170 billion yen (\$1.52 billion). In an unusual move, the nuclear safety watchdog has told Japan Atomic Power, which is on a fragile financial footing, to come up with a workable plan to raise the funds to finance the measures. With the local communities and governments around the plant struggling to develop required plans for emergency evacuations, there is strong skepticism about the feasibility of the company's plan to restart the reactor.

Since there is little chance of the company's other reactors being restarted, the fate of Japan Atomic Power hinges on whether the Tokai No. 2 plant will be allowed to come on stream again.

But that doesn't justify taking it as a given that the company will get the green light for restarting the reactor.

Japan Atomic Power, the major electric utilities with major stakes in the company and the Ministry of Economy, Trade and Industry, which regulates the power industry, should carefully reassess the future of the company without assuming that the reactor will start running again.

The 40-year legal life for nuclear reactors is an important rule to reduce the risk of accidents involving aging reactors. It was introduced following the disastrous accident at the Fukushima No. 1 nuclear power plant in 2011.

The operational life can be extended by up to 20 years if approved by the NRA.

When the law was revised, however, the government said such extensions would be highly exceptional cases.

But Kansai Electric Power Co.'s applications for life extensions for its three aging reactors have all been approved.

If the Tokai No. 2 plant is added to the list, the rule will move closer to becoming a dead letter.

There are no special reasons for restarting the old reactor, such as a serious risk of a power shortage.

Japan Atomic Power's plan should not be given a go-ahead simply to help the embattled company.

The Tokai No. 2 plant is located at the northern tip of the Tokyo metropolitan area. Some 960,000 people live within 30 kilometers from the plant, more than in any other 30-km radius of a nuclear plant. Local governments located within the zone are required to develop evacuation plans.

It is obviously difficult to secure safe evacuation routes, facilities to accept evacuees and the means to transport them for the entire 30-km zone around the plant.

None of the 14 municipalities that are subject to the requirement has worked out an evacuation plan.

The outlook for local government support for the plan is also dismal.

The government of Ibaraki Prefecture and the mayor of Tokai intend to base their decisions on local public opinion as to whether to give their consent to the plan.

Recent Asahi Shimbun surveys of local voters found that opponents to the plan far outnumbered supporters.

Five other cities around the plant are demanding the consent rights similar to those given to Tokai in order to take part in the decision-making process.

Japan Atomic Power and the major utilities that own the firm should confront these realities.

The utilities that are under contract to buy electricity from Japan Atomic Power continue paying more than 100 billion yen of basic fees in total every year even though the company currently generates no power to sell with all its reactors out of operation.

It should not be forgotten that the money comes from the electricity bills paid by consumers.

It has been proposed that Japan Atomic Power should serve as a vehicle for the consolidation of the power industry driven by the decommissioning of aged nuclear reactors.

Instead of simply shelving the problem, the parties involved should accelerate their efforts to map out a viable future for the company.

Fukushima Darkness - Part 1



November 23, 2017

Fukushima Darkness - Part 1

<http://www.ukprogressive.co.uk/fukushima-darkness-part-1/article69552.html>

by Robert Hunziker

The radiation effects of the Fukushima Daiichi Nuclear Power Plant triple meltdowns are felt worldwide, whether lodged in sea life or in humans, it cumulates over time. The impact is now slowly grinding away only to show its true colors at some unpredictable date in the future. That's how radiation works, slow but assuredly destructive, which serves to identify its risks, meaning, one nuke meltdown has the impact, over decades, of a 1,000 regular industrial accidents, maybe more.

It's been six years since the triple 100% nuke meltdowns occurred at Fukushima Daiichi d/d March 11th, 2011, nowadays referred to as "311". Over time, it's easy for the world at large to lose track of the serious implications of the world's largest-ever industrial disaster; out of sight out of mind works that way.

According to Japanese government and TEPCO (Tokyo Electric Power Company) estimates, decommissioning is a decade-by-decade work-in-progress, most likely four decades at a cost of up to ¥21 trillion (\$189B). However, that's the simple part to understanding the Fukushima nuclear disaster story. The difficult painful part is largely hidden from public view via a highly restrictive harsh national secrecy law (Act on the Protection of Specially Designated Secrets, Act No. 108/2013), political pressure galore,

and fear of exposing the truth about the inherent dangers of nuclear reactor meltdowns. Powerful vested interests want it concealed.

Following passage of the 2013 government secrecy act, which says that civil servants or others who “leak secrets” will face up to 10 years in prison, and those who “instigate leaks,” especially journalists, will be subject to a prison term of up to 5 years, Japan fell below Serbia and Botswana in the Reporters Without Borders 2014 World Press Freedom Index. The secrecy act, sharply criticized by the Japanese Federation of Bar Associations, is a shameless act of buttoned-up totalitarianism at the very moment when citizens need and in fact require transparency.

The current status, according to Mr. Okamura, a TEPCO manager, as of November 2017: “We’re struggling with four problems: (1) reducing the radiation at the site (2) stopping the influx of groundwater (3) retrieving the spent fuel rods and (4) removing the molten nuclear fuel.” (Source: Martin Fritz, *The Illusion of Normality at Fukushima*, Deutsche Welle–Asia, Nov. 3, 2017)

In short, nothing much has changed in nearly seven years at the plant facilities, even though tens of thousands of workers have combed the Fukushima countryside, washing down structures, removing topsoil and storing it in large black plastic bags, which end-to-end would extend from Tokyo to Denver and back.

As it happens, sorrowfully, complete nuclear meltdowns are nearly impossible to fix because, in part, nobody knows what to do next. That’s why Chernobyl sealed off the greater area surrounding its meltdown of 1986. Along those same lines, according to Fukushima Daiichi plant manager Shunji Uchida: “Robots and cameras have already provided us with valuable pictures. But it is still unclear what is really going on inside,” *Ibid*.

Seven years and they do not know what’s going on inside. Is it the China Syndrome dilemma of molten hot radioactive corium burrowing into Earth? Is it contaminating aquifers? Nobody knows, nobody can possibly know, which is one of the major risks of nuclear meltdowns, nobody knows what to do. There is no playbook for 100% meltdowns. Fukushima Daiichi proves the point.

“When a major radiological disaster happens and impacts vast tracts of land, it cannot be ‘cleaned up’ or ‘fixed’.” (Source: Hanis Maketab, *Environmental Impacts of Fukushima Nuclear Disaster Will Last ‘decades to centuries’* – Greenpeace, Asia Correspondent, March 4, 2016)

Meanwhile, the world nuclear industry has ambitious growth plans, 50-60 reactors currently under construction, mostly in Asia, with up to 400 more on drawing boards. Nuke advocates claim Fukushima is well along in the cleanup phase so not to worry as the Olympics are coming in a couple of years, including events held smack dab in the heart of Fukushima, where the agricultural economy will provide fresh foodstuff.

The Olympics are PM Abe’s major PR punch to prove to the world that all-is-well at the world’s most dangerous, and out of control, industrial accident site. And, yes it is still out of control. Nevertheless, the Abe government is not concerned. Be that as it may, the risks are multi-fold and likely not well understood. For example, what if another earthquake causes further damage to already-damaged nuclear facilities that are precariously held together with hopes and prayers, subject to massive radiation explosions? Then what? After all, Japan is earthquake country, which defines the boundaries of the country. Japan typically has 400-500 earthquakes in 365 days, or nearly 1.5 quakes per day.

According to Dr. Shuzo Takemoto, professor, Department of Geophysics, Graduate School of Science, Kyoto University: “The problem of Unit 2... If it should encounter a big earth tremor, it will be destroyed and scatter the remaining nuclear fuel and its debris, making the Tokyo metropolitan area uninhabitable. The Tokyo Olympics in 2020 will then be utterly out of the question,” (Shuzo Takemoto, *Potential Global Catastrophe of the Reactor No. 2 at Fukushima Daiichi*, February 11, 2017).

Since the Olympics will be held not far from the Fukushima Daiichi nuclear accident site, it's worthwhile knowing what to expect, i.e., repercussions hidden from public view. After all, it's highly improbable that the Japan Olympic Committee will address the radiation-risk factors for upcoming athletes and spectators. Which prompts a question: What criteria did the International Olympic Committee (IOC) follow in selecting Japan for the 2020 Summer Olympics in the face of three 100% nuclear meltdowns totally out of control? On its face, it seems reckless.

This article, in part, is based upon an academic study that brings to light serious concerns about overall transparency, TEPCO workforce health & sudden deaths, as well as upcoming Olympians, bringing to mind the proposition: Is the decision to hold the Olympics in Japan in 2020 a foolish act of insanity and a crude attempt to help cover up the ravages of radiation?

Thus therefore, a preview of what's happening behind, as well as within, the scenes researched by Adam Broinowski, PhD (author of 25 major academic publications and Post Doctoral Research Fellow, Australian National University): "Informal Labour, Local Citizens and the Tokyo Electric Fukushima Daiichi Nuclear Crisis: Responses to Neoliberal Disaster Management," Australian National University, 2017

The title of Dr. Broinowski's study provides a hint of the inherent conflict, as well as opportunism, that arises with neoliberal capitalism applied to "disaster management" principles. (Naomi Klein explored a similar concept in *The Shock Doctrine: The Rise of Disaster Capitalism*, Knopf Canada, 2007).

Dr. Broinowski's research is detailed, thorough, and complex. His study begins by delving into the impact of neoliberal capitalism, bringing to the fore an equivalence of slave labor to the Japanese economy, especially in regards to what he references as "informal labour." He preeminently describes the onslaught of supply side/neoliberal tendencies throughout the economy of Japan. The Fukushima nuke meltdowns simply bring to surface all of the warts and blemishes endemic to the neoliberal brand of capitalism.

According to Professor Broinowski: "The ongoing disaster at the Fukushima Daiichi nuclear power station (FDNPS), operated by Tokyo Electric Power Company (TEPCO), since 11 March 2011 can be recognised as part of a global phenomenon that has been in development over some time. This disaster occurred within a social and political shift that began in the mid-1970s (ed. supply-side economics, which is strongly reflected in America's current tax bill under consideration) and that became more acute in the early 1990s in Japan with the downturn of economic growth and greater deregulation and financialisation in the global economy. After 40 years of corporate fealty in return for lifetime contracts guaranteed by corporate unions, as tariff protections were lifted further and the workforce was increasingly casualised, those most acutely affected by a weakening welfare regime were irregular day labourers, or what we might call 'informal labour.'"

In short, the 45,000-60,000 workers recruited to deconstruct/decontaminate Fukushima Daiichi and the surrounding prefecture mostly came off the streets, castoffs of neoliberalism's impact on "... independent unions, rendered powerless, growing numbers of unemployed, unskilled and precarious youths (*freeters*) alongside older, vulnerable and homeless day labourers (these groups together comprising roughly 38 per cent of the workforce in 2015) found themselves not only (a) lacking insurance or (b) industrial protection but also in many cases (c) basic living needs. With increasing deindustrialisation and capital flight, regular public outbursts of frustration and anger from these groups have manifested since the Osaka riots of 1992." (Broinowski)

The Osaka Riots of 25 years ago depict the breakdown of modern society's working class, a problem that has spilled over into national political elections worldwide as populism/nationalism dictate winners/losers. In Osaka 1,500 rampaging laborers besieged a police station (somewhat similar to John Carpenter's 1976 iconic film *Assault on Precinct 13*) over outrage of interconnecting links between police

and Japan's powerful "Yakuza" or gangsters that bribe police to turn a blind eye to gangster syndicates that get paid to recruit, often forcibly, workers for low-paying manual jobs for industry.

That's how TEPCO gets workers to work in radiation-sensitive high risks jobs. Along the way, subcontractors rake off most of the money allocated for workers, resulting in a subhuman life style for the riskiest most life-threatening jobs in Japan, maybe the riskiest most life threatening in the world.

Japan has a long history of assembling and recruiting unskilled labor pools at cheap rates, which is typical of nearly all large-scale modern industrial projects. Labor is simply one more commodity to be used and discarded. Tokyo Electric Power Company ("TEPCO") of Fukushima Daiichi fame adheres to those long-standing feudalistic employment practices. They hire workers via layers of subcontractors in order to avoid liabilities, i.e. accidents, health insurance, safety standards, by penetrating into the bottom social layers that have no voice in society.

As such, TEPCO is not legally obligated to report industrial accidents when workers are hired through complex webs or networks of subcontractors; there are approximately 733 subcontractors for TEPCO. Here's the process: TEPCO employs a subcontractor "shita-uke," which in turn employs another subcontractor "mago-uke" that relies upon labor brokers "tehaishilninpu-dashi." At the end of the day, who's responsible for the health and safety of workers? Who's responsible for reporting cases of radiation sickness and/or death caused by radiation exposure?

Based upon anecdotal evidence from reliable sources in Japan, there is good reason to believe TEPCO, as well as the Japanese government, suppress public knowledge of worker radiation sickness and death, as well as the civilian population of Fukushima. Thereby, essentially hoodwinking worldwide public opinion, for example, pro-nuke enthusiasts/advocates point to the safety of nuclear power generation because of so few reported deaths in Japan. But, then again, who's responsible for reporting worker deaths? Answer: Other than an occasional token death report by official sources, nobody!

Furthermore, TEPCO does not report worker deaths that occur outside of the workplace even though the death is a direct result of excessive radiation exposure at the workplace. For example, if a worker with radiation sickness becomes too ill to go to work, they'll obviously die at home and therefore not be reported as a work-related death. As a result, pro-nuke advocates claim Fukushima proves how safe nuclear power is, even when it goes haywire, because there are so few, if any, deaths, as to be inconsequential. That's a boldfaced lie that is discussed in the sequel: Fukushima Darkness – Part 2.

"As one labourer stated re Fukushima Daiichi: 'TEPCO is God. The main contractors are kings, and we are slaves'. In short, Fukushima Daiichi clearly illustrates the social reproduction, exploitation and disposability of informal labour, in the state protection of capital, corporations and their assets." (Broinowski)

Indeed, Japan is a totalitarian corporate state where corporate interests are protected from liability by layers of subcontractors and by vested interests of powerful political bodies and extremely harsh state secrecy laws. As such, it is believed that nuclear safety and health issues, including deaths, are underreported and likely not reported at all in most cases. Therefore, the worldview of nuclear power, as represented in Japan at Fukushima Daiichi, is horribly distorted in favor of nuclear power advocacy.

Fukushima's Darkness – Part 2 sequel, to be published at a future date, discusses consequences.

Fukushima Darkness - Part 2

November 24, 2017

Fukushima Darkness

<https://dissidentvoice.org/2017/11/fukushima-darkness-2/>

(Part 2 of a 2-Part Series)

by Robert Hunziker /

The impact of Fukushima Daiichi's nuclear meltdown extends far and wide, as the hemispheric ecosystem gets hit by tons of radioactive water. Additionally, surreptitiousness surrounds untold death and illness, yet it remains one of the least understood and deceitfully reported episodes of journalism in modern history.

At the same time as Japan passed its totalitarian secrecy act in December 2013, it passed an obstructive Cancer Registration Law, which made it illegal to share medical data or information on radiation-related issues, denying public access to medical records, with violators subject to fines of two million Yen or 5-10 years in prison, a pretty stiff penalty for peeking into medical records, giving the appearance of somebody running scared.

Furthermore, and more egregiously yet, a confidentiality agreement to control medical information about radiation exposure was signed in January 2014 by IAEA, UNSCEAR, and Fukushima Prefecture and Fukushima Medical University. Thereafter, all info of illness from radiation is reported to a central repository run by Fukushima Medical Centre and IAEA. In turn, the Fukushima Centre for Environmental Creation was created in 2015 to communicate "accurate information on radiation to the public and dispel anxiety." Ahem!

Well now, isn't that convenient, a central depository controlled by the International Atomic Energy Agency – IAEA – to report on Fukushima Daiichi radiation exposure and medical illness. It's not hard to figure that's rotten to the core, sounding a lot like words lifted directly off the pages of George Orwell's *Nineteen Eighty-Four* (1949).

Meanwhile, much, but not all, mainstream media reports about radiation-induced illnesses and deaths at Fukushima are feeble grossly incompetent journalism, as follows: "The latest update (in April) by the World Nuclear Association re the Fukushima disaster: There have been no deaths or cases of radiation sickness from the nuclear accident..."¹

According to The World Nuclear Association, as of October 2017:

There have been no deaths or cases of radiation sickness from the nuclear accident, but over 100,000 people were evacuated from their homes to ensure this. Government nervousness delays the return of many.

Here's one more statement of zero deaths at Fukushima, by Hannah Ritchie, published in *Our World in Data*, July 24, 2017:

In the case of Fukushima, although 40-50 people experienced physical injury or radiation burns at the nuclear facility, the number of direct deaths from the incident are quoted to be zero.²

And one more, an article in *Forbes* by Dr. James Conca, an expert on energy, nuclear and dirty bombs: Strangely, the costs that never materialized were the most feared, those of radiation-induced cancer and death... No one received enough dose, even the 20,000 workers who have worked tirelessly to recover from this event.³

Au contraire, it is believed that official reports of Fukushima radiation-induced sicknesses and deaths are horribly under-reported and/or intentionally manipulated to show few, if any, cases. Based upon numerous testimonials obtained by independent journalists and researchers in Japan and U.S. attorneys, there is considerable evidence of radiation-induced deaths and sicknesses.

Seemingly, somebody is dead wrong on the issue of radiation-induced deaths, whether it's (1) official sources via mainstream news or (2) independent researchers/journalists/U.S. attorneys that claim to personally know of deaths. One of those two sources is dead wrong and seriously misleading the world,

which, in and of itself, should be classified as a criminal act, like the Nazi Nuremberg trials (1945-49). In point of fact, if it can be proven that people are covering up and/or lying about Fukushima radiation-induced illness and death, they should be tried and imprisoned, similar to Nazi war criminals. The implications of widespread radiation are not a trifle.

When it comes to uncontrollable radiation, there's an ecumenical obligation for full transparency as a basic right for all humanity, worldwide.

It's a real shame that the authorities hide the truth from the whole world, from the UN. We need to admit that actually many people are dying. We are not allowed to say that, but TEPCO employees also are dying. But they keep mum about it.⁴

Individual medical doctors in Japan have reported serious radiation-related problems, for example:

In April 2014, Dr Tsuda Toshihide, an epidemiologist at Okayama University, declared this a 'thyroid cancer epidemic' and predicted multiple illnesses from long-term internal radiation below 100 mSv/y and advocated for a program of outbreak (emergency or rapid) epidemiology in and outside Fukushima.⁵

Similarly, a Tokyo-based physician, Dr Mita Shigeru, circulated a public statement notifying his colleagues of his intention to relocate his practice to Okayama due to overwhelming evidence of unusual symptoms in his patients (roughly 2,000). Given that soil in Tokyo post-Fukushima returned between 1,000 and 4,000 Bq/kg, as compared to an average of 500 Bq/kg (Cs 137 only) in Kiev soil, Mita pointed to a correlation between these symptoms and the significant radiation contamination in Tōhoku and metropolitan Tokyo.⁶

Fukushima Darkness - (End of) Part 2

The ashes of half a dozen unidentified laborers ended up at a Buddhist temple in a town just north of the crippled Fukushima nuclear plant. Some of the dead men had no papers; others left no emergency contacts. Their names could not be confirmed and no family members had been tracked down to claim their remains. They were simply labeled "decontamination troops" — unknown soldiers in Japan's massive cleanup campaign to make Fukushima livable again five years after radiation poisoned the fertile countryside.⁷

Mako Oshidori, director of Free Press Corporation/Japan, investigated several unreported worker deaths, and interviewed a former nurse who quit TEPCO:

I would like to talk about my interview of a nurse who used to work at the Fukushima Daiichi Nuclear Power Plant (NPP) after the accident... He quit his job with TEPCO, and that's when I interviewed him... As of now, there are multiple NPP workers that have died, but only the ones who died on the job are reported publicly. Some of them have died suddenly while off work, for instance, during the weekend or in their sleep, but none of their deaths are reported.⁸

They are not included in the worker death count. For example, there are some workers who quit the job after a lot of radiation exposure... and end up dying a month later, but none of these deaths are either reported, or included in the death toll. This is the reality of the NPP workers.⁶

Greenpeace has been conducting radiation readings throughout Fukushima ever since 311. Accordingly:

The Japanese government will soon lift evacuation orders for 6,000 citizens of Iitate village in Fukushima Prefecture where radiation levels in nearby forests are comparable to the current levels within the Chernobyl 30km exclusion zone – an area that more than 30 years after the accident remains formally closed to habitation. Seventy-five percent (75%) of Iitate is contaminated forested mountains.⁹

Over time, high levels of radiation from the mountains leach onto cleaned up areas down below. In point of fact, based upon several Greenpeace analyses throughout Fukushima Prefecture, former inhabitants of several communities are returning to towns and villages where spot checks show unacceptable levels of radiation.

Faced with the post-311 reality of government (and corporate) policy that protects economic and security interests over public health and well-being, the majority of the 2 million inhabitants of Fukushima Prefecture are either unconscious of or have been encouraged to accept living with radioactive contamination. People dry their clothes outside, drink local tap water and consume local food, swim in outdoor pools and the ocean, consume and sell their own produce or catches. Financial pressure after 311 as well as the persistent danger of social marginalisation has made it more difficult to take precautionary measures (i.e. permanent relocation, dual accommodation, importing food and water) and develop and share counter-narratives to the official message. Nevertheless, some continue to conceal their anxiety beneath a mask of superficial calm.

As Fukushima city resident Shiina Chieko observed, the majority of people seem to have adopted denial as a way to excise the present danger from their consciousness. Her sister-in-law, for example, ignored her son's 'continuous nosebleeds'; while her mother had decided that the community must endure by pretending that things were no different from pre-311 conditions. (Broinowski)

Radiation exposure shows up years later as one of several illnesses. This gives the nuclear industry an advantage of time lapses in its position statements about the safety of nuclear energy. After all when enough time lapses, who knows for sure the cause of death?

However, Chernobyl provides a perfect case study of radiation-caused deaths of workers with a direct link, "liquidators," exposed to Chernobyl radiation (1986), keeping in mind that radiation takes several years to show up as cancer and other severe ailments:

By 2001, of 800,000 healthy Russian and Ukrainian liquidators (with an average age of 33 years) sent to decontaminate, isolate and stabilise the reactor, 10 per cent had died and 30 per cent were disabled. By 2009, 120,000 liquidators had died, and an epidemic of chronic illness and genetic and perigenetic damage in nuclear workers' descendants appeared (this is predicted to increase over subsequent generations). The full extent of the damage will not be understood until the fifth generation of descendants. By the mid-2000s, 985,000 additional deaths between 1986 and 2004 across Europe were estimated as a direct result from radiation exposure from Chernobyl. (Broinowski)

Chernobyl likely foreshadows a dismal future for those exposed to Fukushima radiation whether residents, workers, or untold recipients throughout the extent of flowing seas, which is universal.

As Chernobyl clearly demonstrates: Over time, radiation cumulates in bodily organs. For an example of how radiation devastates human bodies generation by generation, consider:

There are 2,397,863 people registered with Ukraine's health ministry to receive ongoing Chernobyl-related health care. Of these, 453,391 are children — none born at the time of the accident. Their parents were children in 1986. These children have a range of illnesses: respiratory, digestive, musculoskeletal, eye diseases, blood diseases, cancer, congenital malformations, genetic abnormalities, trauma.¹⁰

As for Fukushima's direct impact on Americans that helped at the time of the meltdowns, former Senator John Edwards is representing cancer-ridden sailors who interceded on a humanitarian basis aboard the USS Ronald Reagan. According to Edwards:

We have all these sailors. Sailors whose case is now five years old, who have died or are in the process of dying right now. Edwards noted that some of his sailor clients have children born with birth defects.¹¹

We now have a 250+ young sailors with all kinds of illnesses, we've had three die. We had one of the sailors who came home and impregnated his wife. They gave birth to a little baby born with brain cancer and cancer down the spine, lived for two years, and just died in March of this year.¹²

TEPCO's attorney Gregory Stone claims his client accepts responsibility for the radiation released but maintains the amount sailors were exposed to was negligible. Stone: "People get sick at different times of their lives for different reasons."

As people unceremoniously, more times than not anonymously, die from radiation exposure, the Abe administration keeps a tight lid on the reality and the potency of Fukushima Daiichi radiation. And, when faced with the prospect of not knowing what to do, bring on the Olympics! That's pretty good cover for a messy situation, making it appear to hundreds of thousands of attendees, as well as to the world community "all is well."

But, is it really?

Postscript:

These sailors are supposed to be very healthy. It's not a normal situation. It is unbelievable that just in four or five years that these healthy sailors would become sick... I think that both the U.S. and Japanese government have something to hide.¹³

- Read Part One here.

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Local economy dependent on nukes...

November 28, 2017

Fukui's push for reactor restarts reflects local economy's reliance on nuclear power

<https://www.japantimes.co.jp/news/2017/11/28/national/fukui-push-reactor-restarts-reflects-local-economy-reliance-nuclear-power/#.Wh1Sc3mDOos>

Kyodo

Fukui Gov. Issei Nishikawa's decision on Monday to give the go-ahead to restarting two reactors at the Oi nuclear plant highlights the local economy's dependence on nuclear power, even 6½ years after the March 2011 Fukushima disaster.

At a news conference, Nishikawa offered what he sees as the merits of a restart, **saying the plant will "have a (positive) impact on the medical, agriculture and fisheries industries."**

The reactors at the Kansai Electric Power Co. plant, located on the Sea of Japan coast, are set to go online starting in January.

Nishikawa's comments reflect how **the prolonged suspension of nuclear plants has weakened the local economy**. Fukui Prefecture is home to the highest number of nuclear power plants among all 47 prefectures.

The decision to bring online reactors 3 and 4 at the Oi plant would make the prefecture the first since the 2011 nuclear disaster to have two active nuclear plants.

Fukui is also host to Kansai Electric's Takahama plant, where two reactors have already resumed operation.

The Osaka-based utility, meanwhile, is just as reliant on nuclear power. Before the Fukushima disaster, nuclear power accounted for more than 40 percent of its power generation. But following the meltdowns

at the Fukushima No. 1 complex and subsequent nuclear power plant suspensions, fuel costs for alternative thermal power weighed on the utility's bottom line.

The two reactors at Oi, offline in September 2013 for regular checkups, cleared the Nuclear Regulation Authority's stricter post-Fukushima safety screenings.

Kansai Electric is planning to bring a total of seven reactors online — including the two Oi reactors given the go ahead this week and reactors 3 and 4 at the Takahama plant.

The three others — all of which are over 40 years old — have won approval for extended operation. They are reactors 1 and 2 at the Takahama plant and reactor 3 at the Mihama plant.

By boosting the ratio of nuclear in its power generation mix, Kansai Electric is looking to top tough competition with gas companies and rival power sources.

An industry insider believes that Kansai Electric may be aiming for a head start in the race by lowering electricity prices after bringing the reactors online.

But restarts remain a challenge, as more spent nuclear fuel only increases the need for storage facilities.

The Oi, Mihama and Takahama plants will all approach full capacity for spent fuel over a five-year period from the time of the restarts, according to an estimate by the Federation of Electric Power Companies of Japan.

In response to Nishikawa's request for a storage facility, Shigeki Iwane, president of Kansai Electric, said the utility would present a plan in 2018.

But the details for such a facility are still unclear due to the difficulty of finding a location.

Nishikawa wants it outside his prefecture.

Restarts ignore safety issues

November 28, 2017

EDITORIAL: Oi nuclear plant gets green light despite lingering safety concerns

<http://www.asahi.com/ajw/articles/AJ201711280019.html>

Fukui Governor Issei Nishikawa has announced his approval of Kansai Electric Power Co.'s plan to restart two reactors at its Oi nuclear power plant in Fukui Prefecture.

Nishikawa's consent has cleared the way for the utility to resume the operation of the idled Nos. 3 and 4 reactors at the plant. The company plans to bring the two reactors back online early next year.

Some 159,000 people live within 30 kilometers from the plant. The local governments involved are legally required to prepare plans for emergency evacuations of these residents.

At Kansai Electric Power's Takahama nuclear plant, which is within the 30-km zone and located 14 km to the west of the Oi plant, the Nos. 3 and 4 reactors have been operating since May and June this year.

But there is no evacuation plan that takes into account the possibility that serious accidents may occur simultaneously at the two plants.

Oi will be another nuclear plant to come on stream with an important safety issue remaining unresolved. We find it impossible to support the utility's plan.

Kansai Electric has decided to seek a 20-year extension of the operational life of three reactors that have been in service for more than 40 years--the Nos. 1 and 2 reactors at the Takahama plant and the No. 3 unit at its Mihama plant, also in Fukui Prefecture.

The company may also opt to continue operating the Nos. 1 and 2 reactors at the Oi plant, which will turn 40 years old next year.

That means the dangerous concentration of nuclear facilities in areas around Wakasa Bay in the prefecture will continue, at least for the time being.

It is assumed that in the event of a serious nuclear accident, most of the local residents living around these plants will flee the areas in their cars.

Evacuation drills that have been conducted so far have raised concerns that the limited evacuation routes can be clogged with fleeing vehicles. It is also feared that some areas could be cut off in harsh weather conditions.

Multiple accidents occurring at neighboring nuclear plants would cause crippling confusion among local residents.

At the very least, it is necessary to work out evacuation plans that can deal with all conceivable situations and make them widely known among local residents.

Kansai Electric and the central government are guilty of behaving in a grossly irresponsible manner by proceeding with the plan to restart the reactors without such plans. But the local governments that have supported the plan should also be accused of irresponsibility.

Local governments close to the region are worried about the implications of the plan.

The governor of Shiga Prefecture has said there is “no environment for granting consent” to the plan.

But Kansai Electric has refused to grant any local government other than Fukui Prefecture and the municipalities where the plants are located the right to consent to its plan to restart the reactors.

The pools to store spent nuclear fuel at the utility’s nuclear power plants are approaching their capacities.

Earlier this month, Shigeki Iwane, president of the Osaka-based utility, pledged to offer a proposed alternative site next year for building an interim storage facility for spent nuclear fuel outside the prefecture.

But many of the local governments in areas that consume electricity supplied by the company have already expressed their intentions to refuse to accept such a facility.

It is by no means clear whether Kansai Electric can find a site for building the envisioned storage facility.

The firm plans to burn mixed oxide fuel (MOX), made from plutonium recovered from used fuel mixed with depleted uranium, at its Takahama plant under the so-called “plu-thermal” system of power generation.

The company has said it will explore possibilities of also adopting this approach at its Oi plant.

But the government’s plan to reprocess used MOX fuel has yet to get off the drawing board.

In other words, spent MOX fuel needs to be stored at the individual plants, at least for the time being.

All these problems and issues are common to many other nuclear plants in Japan and have been pointed out repeatedly for years.

But the operators of nuclear plants, the central government and most of the local governments of areas that are home to nuclear plants have all remained reluctant to make serious efforts to tackle them.

We are deeply concerned about the situation, where a growing number of reactors are being brought back online while serious safety concerns remain to be addressed.

--The Asahi Shimbun, Nov. 28

KEPCO involved in English nukes

December 7, 2017

KEPCO to take over UK nuclear project from Toshiba

https://www3.nhk.or.jp/nhkworld/en/news/20171207_39/

Korea Electric Power Corporation has been named as the preferred bidder to build a nuclear power plant in northwest England.

The South Korean company will negotiate the acquisition of NuGeneration, a subsidiary of Toshiba that is set to build the Moorside nuclear plant.

KEPCO officials said on Thursday they expect to sign a deal in the first half of 2018, provided that they reach an agreement with Toshiba and win the approval of British authorities.

If successful, the bid would become KEPCO's second international contract following a project in the United Arab Emirates.

Toshiba put NuGeneration up for sale as a part of a wider restructuring plan. The Japanese conglomerate suffered massive losses from its nuclear subsidiary Westinghouse, which filed for bankruptcy earlier this year.

More nukes for Japan?

December 8, 2017

Japan needs more nuclear plants, says Keidanren chair

<http://www.asahi.com/ajw/articles/AJ201712080051.html>

By HIROTAKA YAMAGUCHI/ Staff Writer

IKATA, Ehime Prefecture--Japan may need to expand existing nuclear power plants or build new ones as it will rely on nuclear power generation in the future, according to Sadayuki Sakakibara, chair of Keidanren (Japan Business Federation).

Sakakibara made the remarks on Dec. 7 when he visited Shikoku Electric Power Co.'s Ikata Nuclear Power Plant here in western Shikoku island.

Company President Hayato Saeki showed Sakakibara around the plant and told him about the operation of the restarted reactor No. 3 and safety measures that have been implemented.

"As an important source of energy, we will continue to utilize nuclear power plants," Sakakibara said after the visit. "We need to explore the expansion of existing facilities and building new plants as future options."

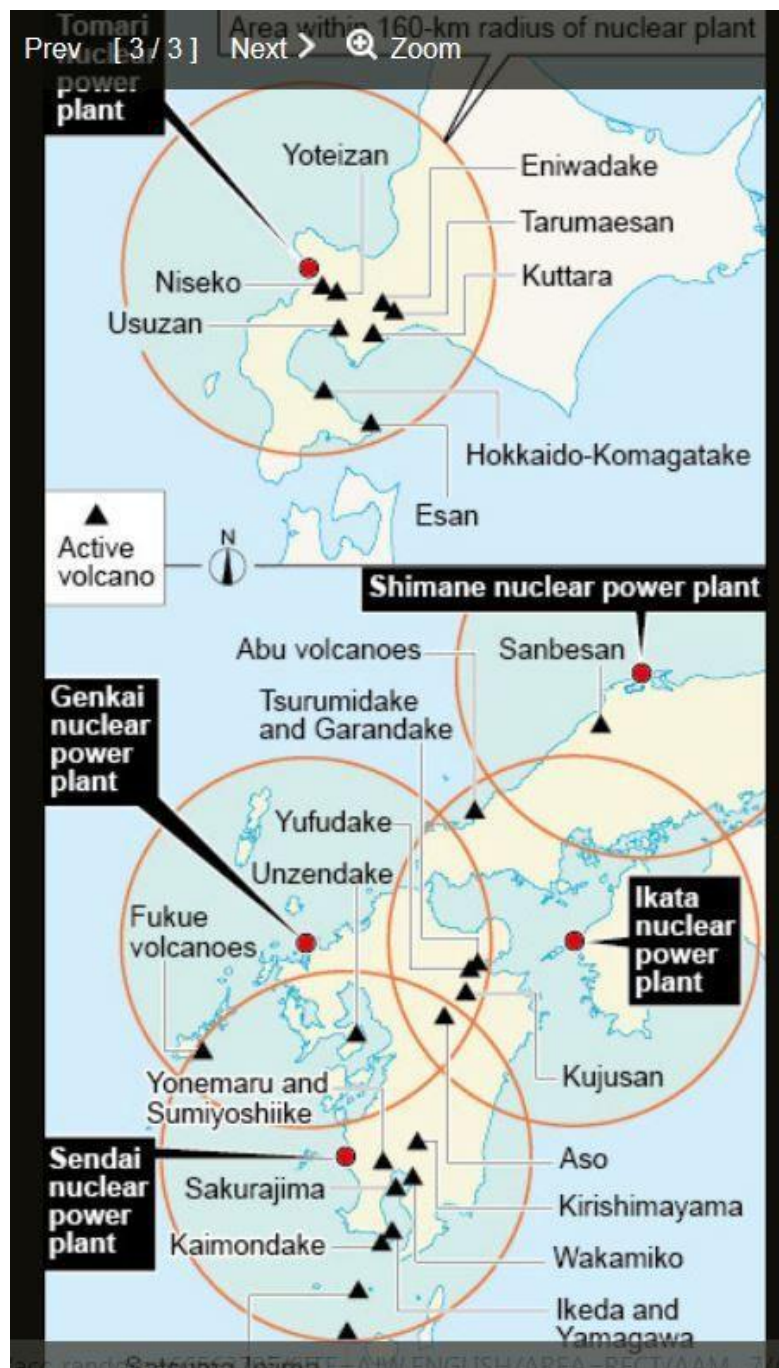
The Ikata plant's No. 3 reactor was restarted in September 2016 after five years and four months of suspension.

It went offline in October 2017 for a regular checkup, which is scheduled to last through January 2018.

“It seems (Shikoku Electric) is implementing thorough measures taking in lessons from the Fukushima nuclear plant accident,” said Sakakibara.

“I would like them to put operational safety first.”

Japan's nuclear policy: What now?



December 15, 2017

Uncertain future for nuclear policy after high court ruling

The landmark Hiroshima High Court ruling ordering a suspension of operations at the Ikata nuclear power plant will likely have far-reaching ramifications for Japan's nuclear energy policy.

It zeroed in on an aspect that has long been an issue with the anti-nuclear lobby, the Ehime Prefecture plant's proximity to an active volcano and the prospect of the facility being inundated in a pyroclastic flow if Kyushu's Mount Aso, 130 or so kilometers away, blows its top.

Instead of considering the frequency of major eruptions in the area, the Dec. 13 ruling focused on a massive one 90,000 years ago and the possibility of a nuclear calamity occurring if a similar event occurred today.

The ruling, the first by a high court ordering a suspension of nuclear plant operations, is especially relevant because Japan has 111 active volcanoes that have erupted in the past 10,000 years.

While massive eruptions are rare, occurring in general once every 10,000 years, all it takes is one to trigger destruction on an unimaginable scale.

Aso has had four massive eruptions in the last 300,000 years, the most recent occurring 90,000 years ago that triggered a pyroclastic flow that tossed magma and volcanic rocks over the Kanmon Straits separating Kyushu and Honshu into Yamaguchi Prefecture.

The last major volcanic eruption in Japan occurred roughly 7,300 years ago on the seabed south of Kyushu, devastating the southernmost main island where Jomon Pottery Culture (c. 8,000 B.C.-300 B.C.) was thriving.

The government, which was caught off-guard by the Hiroshima ruling, no doubt will pay close attention to future court rulings at that level because other nuclear power plants are situated at distances similar to that between the Ikata plant and Aso.

For example, the No. 1 and No. 2 reactors of the Sendai nuclear plant in Kagoshima Prefecture that are currently operating are located within a 160-kilometer radius of the Aso caldera, as are the No. 3 and No. 4 reactors of the Genkai nuclear plant in Saga Prefecture that Kyushu Electric Power Co. hopes to bring back online next spring.

Kyushu Electric said it maintains close monitoring of seismic movements in the area caused by the rumblings of five volcanoes and is confident it will detect any signs of a possible huge eruption.

However, experts scoff at the notion on grounds that it is almost impossible to accurately predict the timing and scale of such an event. They also note that Japan has no practical experience in dealing with a massive eruption.

That said, the Japan Meteorological Agency monitors 50 active volcanoes around the clock.

Yoshiyuki Tatsumi, a professor of planetology at Kobe University, said, "Under the current setup of observing (volcanic) quakes and crustal movement, it is impossible to predict the scale of any eruption."

The groundbreaking Hiroshima court ruling took the government by surprise.

Hiroshige Seko, the economy minister and a champion of nuclear power generation, asserts that the safety standards implemented by the Nuclear Regulation Agency in the aftermath of the 2011 nuclear disaster are "the highest in the world."

Five reactors that passed the NRA's more stringent screening have resumed operations since the Fukushima accident.

But the Hiroshima High Court said the NRA's decision to allow the Ikata plant to resume operations was "not rational" in light of the facility's location and the danger of a catastrophe occurring if Mount Aso erupts like it did 90,000 years ago.

Although Chief Cabinet Secretary Yoshihide Suga made clear at a Dec. 13 news conference that the government would closely abide by future decisions by the NRA, he was painfully rattled by the thought that the court ruling could sow further doubts among the public about the safety of nuclear plants, especially those located near volcanoes.

The government has set a goal of raising the ratio of electricity generated by nuclear power to between 20 and 22 percent of the nation's overall needs by fiscal 2030. That would mean resuming operations at about 30 nuclear power plants.

However, utilities are already facing mind-boggling expenses just to meet the tougher safety standards. If they now have to brace for the possibility of being ordered by courts to halt their nuclear plant operations, the burden on private companies could become too much.

"Nuclear power generation is now impossible for a private-sector company because the risks are just too great," said an executive of an electric power company.

(This article was compiled from reports by Shigeko Segawa, a senior staff writer, Chikako Kawahara and Tsuneo Sasai.)

What place for nuclear power?

December 19, 2017

Nuclear power should be 'baseload power source': Hitachi president

https://mainichi.jp/english/articles/20171219/p2a/00m/0na/010000c#cxrecs_s

Hitachi Ltd. President Toshiaki Higashihara underscored the significance of nuclear power as Japan's baseload power source despite the sector's sluggish business performance in the wake of the Fukushima No. 1 Nuclear Power Plant disaster.

During an interview with the Mainichi Shimbun and other media outlets on Dec. 18, Higashihara said, "We need to consider issues such as the environment, stable energy supply and securing manpower for reactor decommissioning all in a comprehensive manner. Nuclear power should be the country's baseload power source."

Hitachi acquired Britain's Horizon Nuclear Power in 2012 and is promoting a plan to build two nuclear reactors in the country for possible operation in the early 2020s. The Japanese electronics giant is set to make a final decision on the plan in fiscal 2019, though the manner of raising necessary funds for the project has yet to be decided.

"We will create an environment to make the project profitable while receiving support from the governments (of Japan and Britain)," Higashihara said.

At a press conference in October 2016, Higashihara had suggested potential realignment in the nuclear power business in the future alongside Toshiba Corp. and Mitsubishi Heavy Industries Ltd. However, he expressed reservations about the move during the Dec. 18 interview, saying, "It's not something that one single manufacturer should think about. It requires discussion as the issue concerns global energy policy." With regard to the move to integrate domestic nuclear fuel businesses among the three companies, the Hitachi president said the talks "have not progressed well."

Higashihara unveiled his company's goal of raising the ratio of operating profit to sales to 10 percent or more under the next medium-term management plan for the three-year period up to fiscal 2021.

The company had earlier set out a goal of raising its operating profit ratio to 8 percent by fiscal 2018 from the 6.9 percent posted in the midterm consolidated settlement for the business term ended September 2017.

"(Achieving that goal) is a pass point. We should further compare ourselves with global companies," he said. As part of efforts to bolster its marketing efforts overseas, Hitachi is aiming for mergers and acquisitions and business alignment with other companies, according to Higashihara. "There are a great deal of negotiations that are under way behind the scenes," the president said about his firm's acquisition strategy.

In reference to the recent data falsification scandals involving Kobe Steel Ltd. and Mitsubishi Materials Corp., Higashihara pointed out, "Various problems arise when companies attach weight to cost-cutting measures. The heads of companies must keep telling their staff that it is more important to discern right and wrong than pursuing profits."

He testified that Hitachi is free of any quality data falsifications, revealing that an in-house survey found no violation of ethics.

Leak at research center halted cancer therapy study

December 18, 2017

Leak of heavy water at Japanese research reactor delayed cancer therapy study: NRA

<https://www.japantimes.co.jp/news/2017/12/18/national/leak-heavy-water-japanese-research-reactor-delayed-cancer-therapy-study-nra/#.Wjekf3kiGos>

Kyodo

OSAKA – Nuclear regulators have revealed that a leak of heavy water from a research reactor in September temporarily halted a clinical study into an advanced cancer therapy.

The reactor at the Kyoto University Research Reactor Institute in Kumatori, Osaka Prefecture, **was shut down for a month but has since resumed operation.**

The leak occurred even though the reactor passed the stricter safety guidelines adopted after the 2011 Fukushima nuclear crisis.

The clinical study involved **boron neutron capture therapy**, which uses neutron radiation generated from the reactor. It kills only cancerous cells by injecting patients with boron and then projecting neutrons. Requiring no surgery, it has been called "a therapy of the next generation."

The institute discovered the reactor was leaking heavy water from a pipe after an alarm went off Sept. 20 in a system that monitors tritium, suspending the clinical study, according to the Nuclear Regulation Authority.

The NRA confirmed there had been no harmful effects on patients or staff, and that no radioactive material escaped from the facility.

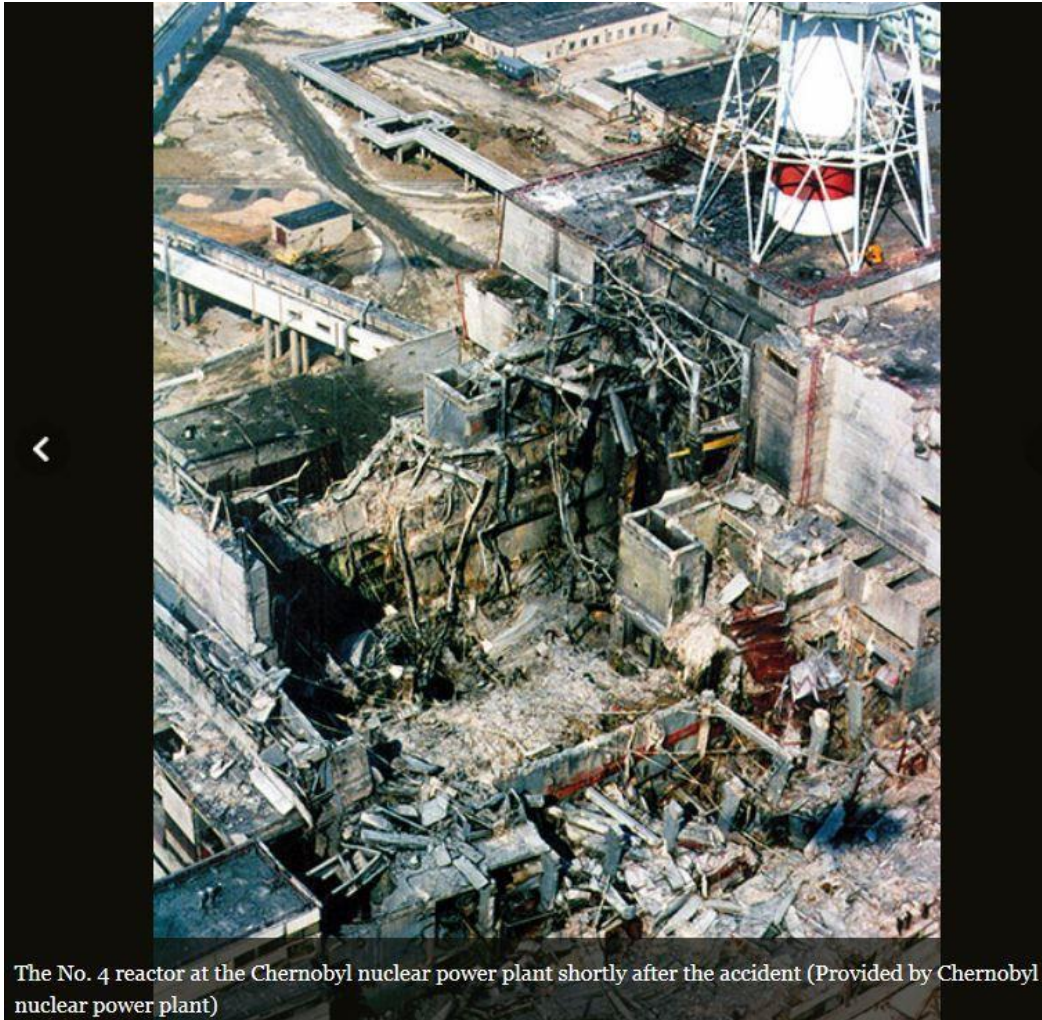
The university apologized to the patients involved in the study for the inconvenience caused by the shutdown.

The NRA said the leak involved about 100 milliliters of heavy water, and that the density of radioactive materials was very low and did not violate safety rules.

The institute restarted the clinical research on Oct. 24 after fixing the leaky pipe.

The reactor began operating in 1964 with a capacity of 5 megawatts. It has been used for more than 500 case studies involving the therapy in cooperation with medical institutions since the 1970s. It was deactivated for a regular check in 2014, following the Fukushima disaster. The institute restarted it Aug. 29 and clinical research resumed two days later.

Officials deliberately downplayed Chernobyl disaster



The No. 4 reactor at the Chernobyl nuclear power plant shortly after the accident (Provided by Chernobyl nuclear power plant)

December 21, 2017

Papers show ministry played down Chernobyl nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201712210043.html>

Foreign Ministry officials made a concerted effort to downplay the Chernobyl nuclear disaster in 1986 to promote nuclear power and avoid friction at a Group of Seven summit in Japan, ministry documents showed.

The documents released on Dec. 20 also showed a sense of overconfidence in the safety of nuclear power in Japan that may have led in part to the Fukushima nuclear disaster in March 2011.

Soviet officials announced on April 28, 1986, that a nuclear accident had occurred in Ukraine. It would become the worst nuclear plant disaster in history.

According to the documents, Foreign Ministry officials scrambled to gather information about the nuclear accident ahead of the Group of Seven summit in Japan that started on May 4.

The United States was initially passive about issuing a G-7 declaration that criticized the Soviet Union for the accident.

Washington and Moscow at that time were negotiating an agreement to reduce their nuclear arsenals, and U.S. officials did not want to push the Soviet Union into a corner with criticism about Chernobyl.

Although then Prime Minister Yasuhiro Nakasone wanted a G-7 statement that touched upon the nuclear disaster, Japan and other G-7 members were promoting nuclear energy. So the declaration that eventually emerged downplayed the possible dangers to the environment and human health from the Chernobyl disaster.

The diplomatic documents showed that terms that might disrupt plans to push forward nuclear power generation were gradually deleted from the final statement.

“The confidence of national leaders about the safety of their own nation’s nuclear plants emerges from the documents,” said Kazuhiko Togo, a former Foreign Ministry official who now heads the Institute for World Affairs at Kyoto Sangyo University. “There was likely a sense of overconfidence that the accident happened because it occurred in the Soviet Union.”

The course taken by Japan veered widely from that of European nations regarding nuclear power.

Many European nations were directly hit by radioactive materials from the Chernobyl plant, and public sentiment in those nations quickly turned against nuclear power.

One year after the Chernobyl accident, the Green Party emerged as a political force in West Germany based largely on its anti-nuclear stance. A national referendum in Italy led to a landslide victory for anti-nuclear forces.

However, in Japan, the then Ministry of International Trade and Industry, which was in charge of nuclear power generation, showed a different stance in a statement issued on April 29, 1986, immediately after the Soviet Union announced the accident.

“The accident occurred at a nuclear plant unique to the Soviet Union, and such an accident would be unthinkable in Japan,” the ministry’s statement said.

Public debate on the need for greater safety at Japan’s nuclear plants did not deepen despite cover-ups of problems at a nuclear plant operated by Tokyo Electric Power Co. and an accident at a Hokuriku Electric Power Co. nuclear plant.

“Japan did not think seriously or make preparations whenever it was faced with a nuclear incident,” said Tatsujiro Suzuki, a former vice chairman of the Japan Atomic Energy Commission. “As a result, its failure to learn from its past lessons led to the Fukushima No. 1 nuclear plant accident.”

Japan also failed to keep up with international moves to strengthen the safety of nuclear plants.

In 1988, the International Atomic Energy Agency asked member nations to establish measures to deal with severe accidents on the precondition that such events are possible.

However, Japan did not obligate nuclear plant operators to set up these measures.

The U.N. Convention on Nuclear Safety, which took effect in 1996, carried a provision calling on signatory nations to separate their safety oversight agencies from the agencies that promote nuclear power.

Japan did not fulfill that obligation.

(This article was compiled from reports by Ryosuke Ishibashi, Masanobu Higashiyama and Toshihide Ueda, a senior staff writer.)

More falsified data?

December 20, 2017

Japan's Kansai Elec used possibly falsified Mitsubishi Materials products at reactors

<http://www.nasdaq.com/article/japans-kansai-elec-used-possibly-falsified-mitsubishi-materials-products-at-reactors-20171220-00031>

By Reuters

TOKYO, Dec 20 (Reuters) - Japan's Kansai Electric Power Co said on Wednesday it has used parts in important safety equipment at two of its nuclear plants that were supplied by a unit of Mitsubishi Materials Corp with possibly falsified data.

The utility has found it is using rubber seals from Mitsubishi Cable Industries with possible falsified specifications in dozens of locations at its Takahama and Ohi nuclear plants, a spokesman said, confirming Japanese media reports.

The discovery comes after Kansai Electric delayed the restart of one of the nuclear power stations because it needs to make checks on parts supplied by Japan's Kobe Steel Ltd, which, like Mitsubishi Materials, is embroiled in a scandal over product specifications.

Kansai Electric receives rubber seals from multiple suppliers and is having difficulties identifying which ones come from Mitsubishi Materials, he said. The company does not plan to switch suppliers, the spokesman said.

Rubber seals are used in large numbers in the extensive piping found in nuclear reactors and their cooling systems and can be subject to high temperatures and pressure.

Mitsubishi Materials and Mitsubishi Cable both declined to comment on Wednesday.

Mitsubishi Materials previously said it had discovered that products with falsified specifications had been sent to more than 300 of its customers.

That was the latest in a slew of scandals to rock Japan's manufacturing industry. Apart from Kobe Steel, similar lapses on specifications have been found at Toray Industries Inc and incorrect final inspection procedures were discovered by automakers Nissan Motor Co and Subaru Corp.

Kansai Electric's delays and checks on Ohi reactors are further hitches to the protracted reboot of Japan's nuclear sector, shut down in the wake of the Fukushima disaster in 2011.

Kansai Electric does not plan to close down the Takahama station for checks, or expect any additional delays on the restart of Ohi, the spokesman said.

Turning down recognition of A-bomb victims

December 18, 2017

Top court dismisses A-bomb victim recognition suit

<https://mainichi.jp/english/articles/20171218/p2g/00m/0dm/064000c>

TOKYO (Kyodo) -- The Supreme Court on Monday rejected a suit filed by people who were in the vicinity of Nagasaki at the time of the 1945 U.S. atomic bombing and seeking official recognition as atomic bomb survivors.

While turning down recognition of the 387 people as victims, the top court found one plaintiff who died after the suit was lodged could have been exposed to radiation after entering areas affected by the attack and sent his case back to the Nagasaki District Court.

The plaintiffs, who claimed they were within 12 kilometers of ground zero at the time of the atomic bomb attack on Aug. 9, 1945, are not classified as survivors, or hibakusha in Japanese, because they were outside the oval-shaped, state-designated zone stretching around 7 km from east to west and around 12 km from north to south.

Instead, they are defined as individuals "who experienced the bombing," and are not therefore entitled to full compensation including medical assistance as hibakusha are. As of late November, 6,278 such individuals who experienced the bombing lived in Nagasaki Prefecture, according to the prefectural government.

The top court's First Petty Bench presided by Justice Katsuyuki Kizawa upheld a 2016 Fukuoka High Court ruling which said an earlier scientific finding that radiation-linked health problems basically occurred within a 5-km range from ground zero was appropriate.

"I'm so disappointed and dumbfounded by the top court decision," said Chiyoko Iwanaga, 81, who leads the plaintiffs. "Although we are getting old and exhausted, I will keep challenging. The truth can't be bent."

In the suit filed in 2007, the plaintiffs had requested the central, Nagasaki prefectural and city governments issue health cards that entitle them to full compensation including medical assistance under a law supporting atomic bomb victims.

They also insisted they developed acute symptoms such as hair loss after exposure to the blast and still suffer from diseases related to radiation. But the top court upheld a 2012 Nagasaki District Court ruling that concluded the symptoms did not match those stemming from radiation exposure.

Under the law to provide support to atomic bomb victims, people are legally recognized as hibakusha if they were in the state-designated zone at the time of the atomic bombing, entered the city within two weeks of the attack, or were otherwise exposed to radiation from the explosion.

All of the plaintiffs argued they fall into the third category, while the man who died during the lawsuit demanded his case be classified as the second.

CDP clarifies position on nukes

December 25, 2017

CDP clarifies goal of eliminating nuclear power in policy draft

<https://mainichi.jp/english/articles/20171225/p2a/00m/0na/019000c>

The Constitutional Democratic Party of Japan (CDP), the largest opposition party in the powerful House of Representatives, specified its goal of eliminating nuclear power by 2040 in a draft of its basic policy that was revealed on Dec. 24.

- **【Related】** CDP, JCP leaders join rally against revising Constitution's war-renouncing Article 9

- **【Related】** Editorial: Weakened, fractured opposition needs to band together at faction level
- **【Related】** Election Review: United opposition could have won 84 single-seat constituencies

The draft states that the CDP seeks to stop the installation of new nuclear reactors as the necessity for such facilities "cannot be recognized," and will not agree on reactivation of idled nuclear reactors unless the national government works out effective evacuation plans, for which the state can be responsible. It then pledges to stick to its goal of decommissioning all nuclear reactors by 2040 in principle, reinforcing its goal of achieving a society without atomic power as early as possible, which the party declared in its campaign pledge for the lower house election in October.

With regard to constitutional amendment, the draft says the party will consider clauses that actually require revisions from the standpoint of putting the brakes on the authorities and protecting the rights of the people.

Under the policy draft, the party regards the Japan-U.S. alliance as the linchpin of Japan's diplomatic and security policy and pursues the sound development of the pact, while proposing revisions to the Status of Forces Agreement between the two countries to reduce the burden of hosting U.S. military bases.

On the economic front, the draft states that the party will seek to set mid- and long-term targets of achieving fiscal health and strengthen the system of redistribution of wealth through a review of the entire tax system, including the consumption tax. The policy draft also includes the goal of raising the minimum wage to at least 1,000 yen an hour, enacting legislation to ban corporate political donations while promoting individual political donations. The party also aims to lower the minimum age at which people can run for public office by 5 years.

The CDP is also poised to incorporate its goal of phasing out nuclear power in a draft of its platform to be compiled by the end of this year. The party aims to demonstrate originality in its draft platform using phrases such as "bottom-up politics" and "grass-root democracy," which CDP leader Yukio Edano pledged to carry out when the party was launched.

Economics & decisions on nukes

December 25, 2017

EDITORIAL: Oi reactors scrapped as nuke power losing cost advantage

<http://www.asahi.com/ajw/articles/AJ201712250012.html>

In a landmark step toward the goal of lowering Japan's dependence on atomic energy, Kansai Electric Power Co. has decided to scrap the No. 1 and No. 2 reactors of its Oi nuclear power plant in Fukui Prefecture.

The pair are the largest in output capacity of all 14 of the fleet of nuclear reactors in Japan that have been designated for decommissioning following the 2011 meltdowns at the Fukushima No. 1 nuclear power plant.

Electric utilities are under the pressure of a rule, introduced in the wake of the Fukushima disaster, saying that nuclear reactors have a service life of only 40 years, in principle. Kansai Electric initially sought an exception to that rule to win extended operation of the Oi No. 1 and No. 2 reactors, whose age limit will expire in 2019, but has given up on that plan in the end.

It could be said the 40-year rule, which was intended to reduce the risk of accidents at aging nuclear reactors, fulfilled its function this time.

There is, however, something unintelligible in the explanations provided by Kansai Electric on its decision to scrap the Oi reactors.

Shigeki Iwane, president of the utility, said in January that his company was planning to apply to the Nuclear Regulation Authority for an extended operation of those reactors.

“Doing so is sufficiently rational in economic terms,” he said.

Kansai Electric’s latest announcement, however, emphasized that, because the two reactors have a unique design, work to implement required safety measures on those reactors would make it difficult to conduct maintenance checkups once they are restarted. The company had never assessed economic efficiency, Iwane said.

One could only imagine what made him change his rhetoric.

The costs of safety measures that would be required to have the Oi No. 1 and No. 2 reactors restarted appeared likely to amount to some 200 billion yen (\$1.77 billion) per reactor. And they could have been allowed to operate only for a maximum of 20 additional years. A significant dent in economic efficiency appeared inevitable even if both reactors were to be brought back online.

In all likelihood, the company made allowances for the industry ministry and fellow electric utilities, which fear that public attention on the faltering cost advantage of nuclear power could frustrate their move to have more nuclear reactors restarted.

All major utilities are facing an increasingly tough situation surrounding nuclear power generation in the wake of the Fukushima disaster.

The more stringent safety regulations mean enormous additional costs are required to have nuclear reactors restarted. Sales of electricity are also on a downtrend, partly because power-saving efforts have taken root, and partly also because liberalization of the retail power market has intensified competition. There is strong public opposition to nuclear restarts, and court procedures are going on across Japan over the wisdom of operating nuclear reactors.

The major utilities should face up squarely to the reduced profitability of, and the risks inherent in, their nuclear power businesses and part with their management style of continuing to rely on atomic energy.

The service life limit of 40 years is ticking down on other nuclear reactors as well.

The utilities should calmly evaluate the total prospective cost of continuing to operate them, which include everything from additional safety measures through the decommissioning process to the disposal of radioactive waste. They should also level-headedly assess if they can dispel the safety concerns among local residents. Doing so will help them decide which reactors should be decommissioned.

That process should be followed over and over to steadily reduce the number of nuclear reactors in the country.

The government should also reorganize its nuclear power policy. It should shift its focus from measures to keep the nuclear sector alive longer to those that befit an age when nuclear decommissioning processes are going into full swing.

Kashiwazaki-Kariwa: Local governments remain divided

December 28, 2017

Local gov'ts of areas hosting nuke plant in Niigata Pref. divided over reactivation

https://mainichi.jp/english/articles/20171228/p2a/00m/0na/008000c#cxrecs_s

NIIGATA -- There are no prospects that two reactors at the Kashiwazaki-Kariwa Nuclear Power Plant, which have passed a safety review by the Nuclear Regulation Authority (NRA), will be restarted in the foreseeable future, as local bodies hosting the plant remain divided over the issue.

- **【Related】** TEPCO nuclear reactors pass safety review, 1st after Fukushima crisis
- **【Related】** 60 holes at Kashiwazaki-Kariwa nuke plant found unfilled in violation of building code
- **【Related】** Environmental economics expert questions clearing of TEPCO reactors in safety review

Niigata Gov. Ryuichi Yoneyama, on the other hand, remains cautious about the resumption of the units' operations.

Gov. Yoneyama told Masaya Kitta, head of TEPCO's Niigata regional headquarters who visited the governor on Dec. 27 that the prefectural government cannot agree on the early reactivation of the plant. "I have no intention of objecting to the decision by the NRA, but our position is that we can't start talks on reactivation unless our examination of three-point checks progresses," Yoneyama told Kitta. The governor was referring to his policy of not sitting at the negotiation table over reactivation unless three points are examined by the prefectural government: the cause of the Fukushima nuclear disaster, potential effects on people's livelihoods as well as health in case of an accident, and safe evacuation measures. He has stated that it would take two to three years to complete the checks of these points.

The governor also told Kitta, "Our examination will never be affected" by the NRA's judgment that the plant meets the new safety standards. Moreover, the prefectural government is poised to independently examine the outcome of the NRA's safety review of the Kashiwazaki-Kariwa power station.

Kashiwazaki Mayor Masahiro Sakurai and Kariwa Mayor Hiroo Shinada were separately briefed by plant manager Chikashi Shitara on the outcome of the NRA safety review of the facility.

Both mayors have expressed their appreciation for TEPCO's response up to this point, and Sakurai urged the power company to "make efforts to reassure local residents (about the nuclear plant)," while Shinada urged the utility to "try to provide information in an appropriate manner."

In the meantime, if the reactivation of the atomic power station is to be delayed, there is a possibility that the national government's grants to the host municipalities will be reduced.

The Economy, Trade and Industry Ministry is continuing to provide such grants to local bodies hosting idled nuclear plants by deeming them to be running plants in some form. In April 2016, the national government revised its rules on grants to nuclear plant host municipalities and decided to reduce the amount of funding if the facilities are not restarted within nine months after the completion of the NRA's safety review, which is necessary for reactivation.

The No. 6 and 7 reactors at the Kashiwazaki-Kariwa plant need to pass two more inspections within a year. If it takes several years to form a consensus among the local governments concerned, however, grants will be reduced in fiscal 2020 at the earliest. The amounts of reductions are estimated at some 400 million yen for Kariwa, about 100 million yen for Kashiwazaki and approximately 740 million yen for Niigata Prefecture.

Local govts want a say in restarts

December 30, 2017

About 50% of local bodies near nuke plants want say over reactor restarts

<https://mainichi.jp/english/articles/20171230/p2a/00m/0na/010000c>

Roughly 50 percent of local governments within a 30-kilometer radius of a nuclear power plant -- excluding municipalities where the plant is located -- want to have a say in the restarting of nuclear reactors, a Mainichi Shimbun survey has found.

- **【Related】** Prospect uncertain for Tokai No. 2 nuke plant restart despite extension application

Among 121 neighboring local bodies, 60 of the 119 that provided answers in the survey said that they wanted to have a say in whether nuclear reactors can be reactivated.

Since the meltdowns at Tokyo Electric Power Co. (TEPCO)'s Fukushima No. 1 Nuclear Power Plant in 2011, the reactivation of nuclear reactors has been subject to consent from prefectures and municipalities hosting the facilities. However, taking into consideration the widespread damage and risks associated with the disaster in 2011, neighboring authorities have also been keen to get involved in the approval process.

A total of 155 local governments were targeted in the survey, which was conducted between September and November 2017 and addressed to local government heads and also to assemblies. The local authority where the Fukushima No. 1 power plant is located also took part.

Thirty-four of the 155 authorities (13 prefectural and 21 municipal) have a commercial nuclear power plant directly within their jurisdictions. The remaining 121 neighboring local bodies (eight prefectural and 113 municipal) are situated within 30 kilometers of a power plant.

Of the 155 local bodies approached, 153 local government heads -- excluding those of Iitate, Fukushima Prefecture and Ikeda, Fukui Prefecture -- gave answers while 154 local assemblies, excluding that of Iitate, cooperated.

Local government heads were asked whether they are for or against reactor restarts at the local nuclear power plant, the extent of their local government's involvement, and the status of any safety agreements with electric power companies. Assemblies were asked whether or not they have adopted any written statements concerning the restarting of nuclear reactors, among other questions.

Regarding the right to approve reactivation of reactors at nuclear power plants and the right to conduct on-site investigations -- which have effectively already been given to mainly local governments where plants are located -- the local government heads were asked if these rights should be extended to neighboring bodies as well. In response, 56 heads stated that it was necessary to grant such rights, seven said that it is partly necessary, 24 said it was unnecessary, one head did not know, 60 gave other answers, and five did not reply.

Altogether, 60 of the 63 heads who said the granting of such rights was "necessary" or "partly necessary" belong to neighboring local governments. Of these 60 local bodies, 16 said that they are against restarting nuclear reactors.

Meanwhile, of the 24 heads who said the granting of these rights was "unnecessary," 10 belong to local governments where a nuclear power plant is located, including Fukui Prefecture -- revealing a difference in attitudes between the immediate and nearby local governments.

However, of the immediate local governments, the town of Okuma in Fukushima Prefecture -- which was seriously affected by the 2011 disaster -- said that the rights need to be extended on the grounds that, "Once an accident happens, the impact spreads across a wide area."

The village of Tokai in Ibaraki Prefecture -- where the Japan Atomic Power Co.'s Tokai No. 2 Nuclear Power Plant is based -- was among those that replied that it is "partly necessary" to extend the rights.

Order not to use the word "meltdown" blamed on TEPCO

December 27, 2017

TEPCO president gave order not to call 2011 crisis a 'meltdown'

<http://www.asahi.com/ajw/articles/AJ201712270036.html>

By KOHEI KANO/ Staff Writer

NIIGATA--An investigation committee is leveling the blame for the failure to use the word "meltdown" following the Fukushima nuclear accident in March 2011 at Tokyo Electric Power Co. President Masataka Shimizu.

Shimizu instructed TEPCO employees not to use the term on his own and was not following orders from the prime minister's office, the committee's report said on Dec. 26.

TEPCO did not publicly confirm that a meltdown had occurred until May 2011.

"There were no instructions (to TEPCO) from the prime minister's office on whether to use the word 'meltdown' or not," the panel said as to why the announcement was delayed for two months.

The committee was jointly set up by the Niigata prefectural government and TEPCO to investigate the cause of the accident at the Fukushima No. 1 nuclear power plant due to the Great East Japan Earthquake and tsunami of March 11, 2011.

The investigation is a prerequisite for the prefectural government starting discussions on whether to agree to the restart of the Kashiwazaki-Kariwa nuclear power plant, also operated by TEPCO, in the prefecture.

The description of the investigation committee's report contrasted sharply with a report released in June 2016 by a third-party investigation committee set up by TEPCO.

According to the third-party committee's report, Shimizu instructed then Vice President Sakae Muto through a TEPCO employee "not to use the word 'meltdown' at the direction of the prime minister's office" when Muto held a news conference on March 14, 2011, three days after the nuclear accident ensued.

As Shimizu's memory had faded, the third-party committee was unable to confirm details of the "instruction" from the prime minister's office, but assumed that there was a directive from the prime minister's office.

Whether an order had been issued by the prime minister's office became a focus of the investigation of the Niigata prefectural government and TEPCO committee.

According to the joint panel's report, Shimizu met with then Prime Minister Naoto Kan and then Chief Cabinet Secretary Yukio Edano of the Democratic Party of Japan-led government at the prime minister's office on March 13, 2011, a day before Muto's news conference.

In that meeting, Shimizu received instructions from Kan and Edano on sharing information.

Shimizu thought that since the definition of a "meltdown" is vague, an announcement that one had occurred could cause a panic unless the release of such news was made after reaching a consensus with the prime minister's office.

Based on this reasoning, Shimizu instructed TEPCO's employees "not to use the word 'meltdown,'" on his own, he was quoted by the report as telling members of the investigation committee.

Private equity group buys Westinghouse

January 5, 2018

Brookfield Private Equity Group To Buy Westinghouse For \$4.6 Billion

<https://www.nucnet.org/all-the-news/2018/01/05/brookfield-private-equity-group-to-buy-westinghouse-for-4-6-billion>

5 Jan (NucNet): Westinghouse Electric Company, the US nuclear engineering group that went into chapter 11 bankruptcy last year, has been sold by its owner Toshiba to Brookfield Business Partners, the private equity group, for \$4.6bn (€3.8bn).

According to Brookfield, the deal is conditional on approval from the bankruptcy court and regulators around the world.

Brookfield is funding the acquisition with about \$1bn in equity and \$3bn in long-term debt, with the remainder coming from pension and environmental liabilities that it is taking on.

Cyrus Madon, Brookfield's chief executive, said the group looked forward to "bringing our significant expertise and reputation as a long-term owner and operator of critical infrastructure in the US and globally, as well as our deep facilities management capabilities, to enhance the company's position as a leading global infrastructure services provider to the power generation industry".

Westinghouse was forced into bankruptcy after long delays and rising costs at the Vogtle and Summer AP1000 nuclear projects in the US, for which it was supplying the AP1000 reactor technology.

The company leading the Summer project, Scana of South Carolina, abandoned the development last year and on Wednesday announced that it had accepted a \$14.6bn takeover bid from Dominion Energy.

The other project, Vogtle in Georgia, is still going ahead after state regulators gave their approval last month.

Brookfield said in a statement that Westinghouse had a strong market position as the largest service provider to nuclear power plants worldwide, earning the majority of its profits from long-term contracts.

It added: "An iconic American company, Westinghouse offers a full suite of specialised parts and components, many of which are licensed or patented, as well as industry-leading engineering and other services that enhance the safety, efficiency and reliability of its customers' facilities."

Human Rights, Future Generations and Crimes in the Nuclear Age

January 5, 2018

Paracelsus, the Nuclear Age, and Future Generations

<http://akiomatsumura.com/2018/01/paracelsus-the-nuclear-age-and-future-generations.html>

Emilie Gaillard and Andreas Nidecker

The famous physician Andreas Paracelsus, who taught at the University of Basel in the early 16th century, wrote: "What sense would it make or what would it benefit a physician, if he discovered the origin of the diseases but could not cure or alleviate them?"

We are a lawyer and a radiologist, reporting from a recent three-day interdisciplinary symposium at the U of Basel. It was attended by physicians, lawyers, nuclear experts and scientists, entitled "**Human Rights, Future Generations and Crimes in the Nuclear Age**" and was sponsored by the Swiss branch of the International Physicians for the Prevention of Nuclear War (IPPNW) and the International Association of Lawyers Against Nuclear Arms (IALANA).

At our symposium we examined what effects policies relating to nuclear weapons have on the health and the environment. In that regard we considered the human rights situation of victims of nuclear tests and nuclear disasters. The recent success of 122 nations, which on July 7th accepted the UN "treaty on the prohibition of nuclear weapons" obliges in Article 6 nations to environmental remediation and to assistance for the victims, at least those of the use and testing of nuclear weapons.

Most of the discussions, however, focused on the implications of the nuclear weapons and civil use of nuclear energy for the future generations. It is they – our children, grandchildren and their descendants – who will continue to bear the risks of nuclear war and the potential health effects of the ongoing, progressive global nuclear contamination. This started with the first atmospheric nuclear weapons test "Trinity" in July 1945, followed by some 2000 test explosions by nine nuclear states, hundreds of which were above ground thereby contaminating the biosphere. The Chernobyl nuclear reactor explosion led to a regional but also widespread contamination of Europe and today there is the ongoing leakage into the Pacific of high volumes of radioactively contaminated water from the damaged reactors in Fukushima. Financing the legacy of civil use of nuclear power, including the construction of safe waste storage repositories will be a further challenge we mainly leave to our children and grand-children.

Discussions finally questioned possible liabilities of Governments i.e. decision makers in nuclear weapon states, when intended or accidental launch of nuclear arms might eventually have global repercussions and could lead to the extinction of mankind. The very idea of recognizing crimes against future generations becomes now a new reality: any nuclear war should lead to a major response of international law as it closes the horizon of the future for ever.

Indeed, the entry into the nuclear age marks the unprecedented acquisition of power of humankind over the earth and all forms of life; geologists name this new era the Anthropocene. Many believe that in this era a new code of medical and legal ethics is necessary, as the specific challenges of facing nuclear risks and disasters require a paradigm shift in both disciplines. We must now seriously consider the trans-generational impacts of ionizing radiation on all forms of life and take effective measures to prevent serious health effects in today's populations, in particular young women and children. Yet we also must protect our descendants, as ionizing radiation may cause not only cancer and non-cancerous diseases but also may have genetic impacts in humans exposed today. These effects may even occur with long-term chronic exposure to very low doses of ionizing radiation. They will not become manifest in today's victims, but might present as disease in their offspring only decades later.

Thus we must also adapt the current legal framework of basic principles to this new reality and create new laws, designed specifically to protect and take into consideration the human rights of future generations. The Universal Declaration of Human Rights, although not legally binding, comprises some thirty individual rights. Some of them are pertinent to victims of nuclear accidents. Displaced people in the Fukushima prefecture e.g. should have the right to adequate living standards as well as the rights to express their opinion and the right to receive information. In fact, the Japanese constitution does recognize these rights and defends the trans-generational principle of human rights of future generations in Articles 11 and 97. Yet these rights presently are not respected, for in Japan the press is forbidden to report on current events in Fukushima and medical research on the effects of the reactor meltdown is restricted. Most radiation scientists in Japan, with some exceptions, minimize the risks of radiation and the official widely-observed policy is that small amounts of radiation are harmless: scientifically speaking this is untenable. Furthermore, the Japanese Government is trying to increase the public limit for radiation from 1 mSv to 20 mSv per year, a value generally allowed for radiation workers only. Its scientists are trying to force the International Commission of Radiation Protection ICRP to accept this large increase, yet many consider this not only unscientific but also unconscionable. This handling of the aftermath of the nuclear catastrophe of Fukushima therefore could be considered a violation of human rights and even a crime against future generations.

To voice concerns for the human rights of future generations today is not enough. New legal provisions to insure these rights must be created. Additionally concrete steps towards abolishing nuclear weapons in the coming years are urgently needed. Furthermore, due to the high costs for dismantlement of nuclear reactors and the enormous investments for safe nuclear waste storage, our generation should take responsibility and at least shoulder some of these costs and not burden them on our offspring only.

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International Physicians for the Prevention of Nuclear War (IPPNW) received the Nobel Peace Prize in 1985. IPPNW has remained a leader in the global movement for a world without nuclear weapons, launching the International Campaign to Abolish Nuclear Weapons (ICAN) in 2007, and campaigning for a treaty to ban these instruments of mass extermination as a basis for their elimination. ICAN received the 2017 Nobel Peace Prize in recognition of its efforts to achieve the Treaty on the Prohibition of Nuclear Weapons, which was adopted at the UN in July 2017.

Using Fukushima sake to push for recovery

January 10, 2018

Fukushima's premium sake wins worldwide acclaim, as brewers eye global markets in prefecture's push for recovery

<https://www.japantimes.co.jp/news/2018/01/10/national/fukushimas-premium-sake-wins-worldwide-acclaim-brewers-eye-global-markets-prefectures-push-recovery/#.WlXhwXkiGos>

by Masahiro Hidaka and Yuko Takeo

Bloomberg

In an area of Japan still decimated by nuclear disaster, sake is offering cause for hope.

For the past five years the sake brewers of Fukushima — on a two-decade quest to develop premium products — have captured the most gold medals in a key national competition, and have won numerous international awards. Drinkers worldwide have noticed the rising quality, and sake exports from Fukushima have more than doubled since 2012.

Now the prefectural government and local brewers are promoting their success. The hope is that Fukushima's champion sake — made from local rice and water — will serve as a symbol of the safety of local agricultural and fishery products and of prospects for the prefecture's broader revival.

"If we can show that Fukushima makes the best sake in the world, surely we can overcome the stigma," said Hiroyuki Karahashi, the president of Homare Sake Brewery Co., which won first place in the sake category at the 2015 London International Wine Challenge.

Fukushima's challenge is enormous. The earthquake, tsunami and nuclear meltdowns that devastated the region in March 2011 killed 4,000 people in Fukushima alone. Many of the 50,000 people forced to leave their homes have no plans to return. The local economy has been largely propped up by reconstruction spending in the years since, but that spending is expected to fall in the years to come.

Meanwhile, local companies still struggle with lingering public fears of radiation contamination. Only around 30 percent of businesses in the important fisheries and food processing sectors have seen their sales rise to pre-disaster levels, according to the nation's reconstruction agency.

All agricultural products from Fukushima — including every bag of rice — are tested for radiation using internationally accepted standards before shipment. Since 2015, no rice has registered radiation above the safety level, NHK has reported.

Still, 55 countries have some kind of restriction or requirement for additional documentation on imports of Fukushima products, according to the Foreign Ministry.

Takahiro Ichimura, a director of trade promotion at the Fukushima Prefectural Government who's spearheading the sake promotion efforts, said the importance of the ingredients in sake should help change people's perception of Fukushima.

"Water and rice are crucial," he said. "Once Fukushima's sake gains broader recognition and more people drink it, we think that overall appreciation for Fukushima should also increase."

The surge in sake exports follows a plunge in consumption in Japan — by half over the past 20 years — as consumers broadened their tastes.

Fukushima is trying to increase sales in the U.S. and Europe, including with promotional tours, Ichimura said. It has allocated ¥100 million (\$880,000) this fiscal year to promote local sake at events in major cities in Japan and abroad, as well as at trade shows and promotional websites, in a campaign run by a private public relations agency. It plans to increase the budget 10 percent next year.

One event near Shinbashi Station, a Tokyo business area teeming with salarymen, drew 30,000 people this year — up from 20,000 last year, according to the prefecture.

Behind the brewers' recent success lies a shift in strategy toward premium products. Twenty years ago many of Fukushima's breweries produced cheap sake that included distilled alcohol, earning them a poor reputation in Japan's northeast, which is historically a major sake-producing region.

The prefectural sake academy, established in 1992, changed the game. The various breweries' heirs came together there to pool their secret brewing techniques, raising the bar for the entire prefecture. At one three-century old brewery the focus is now on using organic rice, while at another an older, more time-consuming technique to create yeast mash — a key ingredient — is being revived to improve flavor. To be sure, changing Fukushima's image will be a struggle. While Japan's latest national budget included billions of yen for the purpose, 13 percent of Japanese respondents to a recent survey said they would hesitate before buying produce from Fukushima due to worries about radiation. Ichimura remains optimistic.

"Fukushima's sake is a symbol of its recovery. It's managed to achieve results despite the odds," he said. "My hope is that people will see this, and see how Fukushima is moving forward."

US sailors claim dismissed by US court

January 11, 2017

US court dismisses 'Operation Tomodachi' suit

https://www3.nhk.or.jp/nhkworld/en/news/20180111_33/

A US court has dismissed a suit demanding the operator of the Fukushima Daiichi nuclear plant set up a fund for US personnel claiming radiation exposure.

The lawsuit was filed last August by 157 plaintiffs, including crewmembers of an aircraft carrier that took part in the Operation Tomodachi relief effort immediately after the 2011 nuclear accident. They claimed they were suffering health problems as a result of exposure to radiation during the mission.

The plaintiffs demanded plant operator Tokyo Electric Power Company, or TEPCO, contribute at least 5 billion dollars to a fund to cover the costs of medical treatment.

The company says a federal court in California turned down the petition last Friday, citing its lack of jurisdiction and authority to hear the case.

But the court reportedly suggested it would not prevent the plaintiffs from filing a revised lawsuit.

A similar lawsuit filed 6 years ago is still underway.

TEPCO says it will keep an eye on what actions the plaintiffs take next.

More information about the US sailors' lawsuit in California

US court dismisses 'Operation Tomodachi' suit

https://www3.nhk.or.jp/nhkworld/en/news/20180111_33/

Judge: Sailors' Fukushima Radiation Case Doesn't Belong in US

<https://www.courthousenews.com/sailors-fight-to-keep-fukushima-radiation-case-in-us/>

January 5, 2018 BIANCA BRUNO

SAN DIEGO (CN) – A federal judge on Friday dismissed without prejudice the latest class action filed by hundreds of U.S. sailors exposed to radiation in the Fukushima, Japan, nuclear disaster, finding a San Diego courtroom isn't the right place for the case.

U.S. District Judge Janis Sammartino issued a 15-page order dismissing the class action against Tokyo Electric Power Co. (TepCo) and General Electric, finding the service members who were stationed aboard the USS Ronald Reagan in San Diego have failed to establish how the Japanese utility's acts were directed at California.

"There is no targeting here. Plaintiffs' allegations that the effects of TepCo's conduct were felt by American citizens while on U.S. ships, one of which with a home port of San Diego, are too attenuated to establish purposeful direction," Sammartino wrote.

Sammartino added the sailors "have provided no information to support an assertion that TepCo knew its actions would cause harm likely to be suffered in California."

In an email, class attorney Cate Edwards said, "We appreciate the time and attention that Judge Sammartino gave our arguments. Per her order, we intend to refile the case on behalf of the *Bartel* Plaintiffs and continue to fight for the justice these sailors deserve. We will also be moving forward with the *Cooper* case in due course, and look forward to reaching the merits in that case."

The judge's order dismisses the most recent class action filed in San Diego Federal Court last August. It follows another class action filed by an initial group of sailors in 2012, a year after they were sent to render aid after the March 11, 2011 tsunami and earthquake which caused the Fukushima Daiichi nuclear plant to meltdown and release radiation. That case has survived dismissal and an appeal to the Ninth Circuit.

More than 420 U.S. service members in the two cases seek compensation and medical monitoring, testing and health care costs for exposure to radiation. Some sailors have died from complications of radiation exposure since the cases were filed, and more than 20 are living with cancer, according to the lawsuits. In a court hearing Thursday, Sammartino considered the motions to dismiss from TepCo and GE. They argued California courts have no jurisdiction over events in Japan. Sammartino also considered a choice-of-law motion from General Electric, which wants to apply Japanese law to the case or have it transferred to Japan.

TepCo operated the Fukushima nuclear plant, and GE designed its reactors.

TepCo attorney Gregory Stone, with Munger, Tolles & Olson in Los Angeles, said at the Thursday hearing all claims brought in the United States could be brought in Japan and that the statute of limitations has not run out there.

GE attorney Michael Schissel, with Arnold & Porter in New York, also said the case belongs in Japan, where the facts originated and the witnesses are. Schissel said the Japanese government declared the nuclear meltdown was not a natural disaster, so TepCo could be held liable for damages.

But former Sen. John Edwards, of the firm Edwards Kirby in North Carolina, said it's important to look at the situation "from altitude," to see things from the sailors' perspective.

"These are American sailors, American employees serving their country, who were sent on American ships on international waters at the request of the Japanese government ... their ally, which owns the majority of stock in defendant TepCo," Edwards said.

"Being on an American ship in international waters puts you on American soil."

Edwards said that since the vast majority of the sailor-plaintiffs were stationed in San Diego and GE designed the nuclear reactors at its San Jose headquarters, the case belongs in California.

"They want the case in Japan because they know it goes away; that's clearly their strategy," Edwards said. He added: "This case screams federal jurisdiction; this case screams United States of America. The underlying concept of this whole thing is fundamental and basic notions of fairness being met."

Edwards' co-counsel Charles Bonner, with Bonner & Bonner in Sausalito, said if the case were transferred to Japan, where GE could be dismissed as a defendant, GE could "continue building their defective reactors with impunity."

Bonner added that California has a vested interest in applying its own laws, including strict liability for defective products, and punitive damages to deter companies from selling defective products. He pointed out that one-sixth of the U.S. Navy is based in San Diego, with 69 Navy ships in San Diego Harbor.

"(Japan's) compensation act has not been applied to their own citizens, only businesses. Why should we speculate their compensation act will help our sailors? It will not," Bonner said.

Stone countered that Bonner was "simply wrong" in claiming that the Japanese nuclear damage compensation act had not benefited individual Japanese citizens. He said it is the conduct of defendants TepCo and GE – which occurred in Japan – and not the plaintiffs' place of residence that should determine jurisdiction over the case.

The sailors' attorneys indicated Thursday if Sammartino dismissed the class action, they would seek leave to amend their first case, *Cooper v. TepCo*, to add additional plaintiffs who were dismissed from the second case, *Bartel v. TepCo*. The defendants are expected to oppose the motion.

Stone and Schissel did not immediately return phone and email requests for comment Friday.

Japanese coal criticised

January 13, 2018

EDITORIAL: Coal as a major power source represents huge step backward

<http://www.asahi.com/ajw/articles/AJ201801130012.html>

Japan is facing mounting international criticism over its coal-fired thermal power generation goals while the rest of the world is striving to reduce its carbon footprint.

Japanese utilities have a raft of plans to build new coal-fired power plants despite the fact that coal generates far larger amounts of carbon dioxide

when burned than other fuels for power generation. These projects could throw a monkey wrench into the policy campaign to stem global warming.

The government should rethink its policy decision to position coal as a "mainstay power source" to stop unbridled expansion of the use of coal in thermal power generation.

Since the catastrophic accident at the Fukushima No. 1 nuclear power plant in 2011, low-cost coal-burning thermal power generation has been greatly expanded in Japan to compensate for the loss of electricity generated with atomic energy.

Now, coal-fired power plants account for over 30 percent of all electricity produced in the nation. The expansion will likely continue with private-sector utilities planning to build 40 or so new coal-fired power stations in the coming years.

If all these plans are implemented, Japan's overall coal-fired power generation capacity will increase by about 40 percent, causing its CO₂ emissions to surge to levels far above the government's estimates for years to come.

Japan's coal expansion drive is criticized roundly by international environmental groups, a situation that is threatening to put the nation into international isolation along with the United States, where the Trump administration is promoting the use of coal as a fuel for power generation.

A major change in the world's attitude toward coal came in 2015 with the Paris climate accord, which prompted many industrial nations in Europe to accelerate their efforts to reduce coal consumption. China, a leading power consumer, has also switched to curbing its consumption of coal.

In the world of business, there has been a growing trend toward pulling the plug on coal-related investments.

Even if it is unrealistic to try to slash Japan's coal-fired power generation sharply right now, the government should at least realize that an energy policy that runs counter to the powerful global trend cannot be sustained over the long-term.

Swift actions should be taken to remake Japan's energy policy through the review of the nation's basic energy supply plan that is now being debated within the government.

First of all, the government should abandon its official position that coal is "a fuel for important baseload power sources." This concept was introduced in the last revision to the basic energy plan in 2014.

It should also take steps toward steadily lowering the nation's dependence on coal, as well as on nuclear power, through redoubled efforts to expand the use of renewable energy sources and reduce total energy consumption itself.

Among fuels for thermal power generation, natural gas, which produces less CO₂ emissions, should be promoted as a mainstay power source.

The new basic energy plan needs to make these policy shifts clear.

Also important are efforts to cut CO₂ emissions from thermal power plants.

The current regulations for thermal power plants based on the energy saving law and other related legislation only provide a weak system to slash CO₂ emissions, mainly through requirements of certain levels of efficiency in power generation by utilities.

The system's ability to lower the nation's overall CO₂ emissions is in doubt.

The power supply industry is making efforts to cut CO₂ emissions, but only on a voluntary basis.

Many other countries have introduced a wide variety of more effective measures to cut greenhouse gas emissions, including a carbon tax, imposed on the burning of carbon-based fuels according to the amounts of CO₂ emissions, emissions trading and regulatory restrictions on emissions by power suppliers.

Japan should also consider introducing such measures, and quickly.

Stricter regulations on CO₂ emissions would make it difficult to operate coal-fired power plants profitably. We urge utilities planning to build new coal-fired power plants to reconsider their plans in response to the changing business environment.

--The Asahi Shimbun, Jan. 13

Koizumi on Article 9 revision and the antinuclear bill

January 18, 2018

Ex-PM Koizumi sees Article 9 revision difficult without cooperation from opposition

<https://mainichi.jp/english/articles/20180118/p2a/00m/0na/004000c>

Former Prime Minister Junichiro Koizumi expressed his view that revising war-renouncing Article 9 of the Constitution is difficult to achieve under the current state of affairs as the matter requires cooperation from opposition parties, in an interview with the Mainichi Shimbun on Jan. 17.

- **【Related】** Civic group proposes bill for Japan to exit nuclear power
- **【Related】** Abe hopes to advance constitutional amendment debate before 2019
- **【Related】** Abe hints he will decide on whether to run in LDP presidential race in summer

Asked about Prime Minister Shinzo Abe's ambition to make changes to the war-renouncing article by 2020, Koizumi said, "Amendments to Article 9 require an environment where a two-thirds majority (of members in both houses of the Diet) would naturally agree to the revisions after discussions with the opposition. It would not happen if forced." He then added that **at the moment Prime Minister Abe and the ruling Liberal Democratic Party (LDP) do not have the momentum to have opposition forces involved in the discussion.**

In responding to questions regarding Abe's potential candidacy for his third term as LDP president, Koizumi says he does not know anything yet, stating that even Abe is saying himself that he will decide whether to run in the party leadership election scheduled in September this year at the last minute. "When it comes to elections, you can't tell anything beforehand. I lost in the (LDP) leadership race twice and was told I wouldn't succeed in my third challenge, but I did," Koizumi said.

Meanwhile, the former prime minister also talked about the bill that he has proposed to end the use of nuclear power in Japan. Koizumi said in the interview that while he knows anti-nuclear power bills filed by Diet lawmakers will "not pass due to opposition from the LDP," **if the subject is debated at the Diet, it will become clear that "what has been claimed by the pro-nuclear power camp about safety and cost efficiency (of nuclear energy) is a lie."** He continued, "If the people's deep-rooted opposition to nuclear power could be further evoked, the subject could become a key issue in the next House of Councillors election (in 2019). And in such a case, the LDP would not be able to just sit around and do nothing about it," suggesting his plan to spark a national movement against nuclear power to time with the upper house race.

Nukes: Are they worth it?

January 22, 2018

EDITORIAL: Backing Hitachi nuke project in Britain risks taxpayer money

<http://www.asahi.com/ajw/articles/AJ201801220018.html>

Using taxpayer money to help finance a company's project to build a new nuclear power plant overseas would **force the public to shoulder the huge risks of a questionable policy undertaking to rescue the embattled nuclear power industry.**

It is highly doubtful that massive public financing for such a project will receive broad support from the public.

The government is considering providing enormous loans to aid Hitachi Ltd.'s project to build and operate a new nuclear plant on the island of Anglesey off northwest Wales.

But the risks involved in the nuclear power business have surged globally since the 2011 Fukushima nuclear disaster, due mainly to sharp rises in construction costs caused by stricter safety standards.

Toshiba Corp.'s nuclear debacle in the United States, which has thrown the company into a financial crisis, is still fresh in our memories.

As Tokyo Electric Power Co.'s predicament has dramatically demonstrated, should a severe nuclear accident occur, the operator of the plant would face financial liabilities of a tremendous magnitude related to damages caused by the disaster.

If Hitachi's nuclear project fails, the government-affiliated financial institutions that provide financing for the project will incur heavy losses, which may eventually have to be covered with taxpayer money.

The government should rethink its headlong rush to help finance the project and make careful reassessments of the risks involved as well as the necessity of the measure from a policy perspective.

According to the plan, a British company that has been acquired by Hitachi will build two reactors with an eye to the beginning of operations in the mid-2020s.

The cost of the project, which is currently estimated at 3 trillion yen (\$27.08 billion), will be covered with loans from Japanese and British lenders and investments from newly recruited business partners.

Hitachi will make the final decision on whether to build the reactors, possibly next year, after assessing the commercial viability of the project.

While major Japanese banks remain cautious about providing loans for the project, the public sector is notably keen to back it.

The government-affiliated Japan Bank for International Cooperation (JBIC) is ready to extend hundreds of billions of yen in loans for the project. In addition, the government is considering applying the trade insurance system to all the loans extended by Japanese commercial banks, which are expected to total in the hundreds of billions of yen.

This would mean the government will effectively guarantee all the private-sector loans. The government-affiliated Development Bank of Japan (DBJ) is also willing to chip in with funding.

The administration of Prime Minister Shinzo Abe is eager to support the project because it wants to salvage the floundering nuclear power industry.

The catastrophic accident at the Fukushima No. 1 nuclear power plant has seriously endangered the future of Japan's atomic energy industry by making it effectively impossible to build new reactors at home.

The Ministry of Economy, Trade and Industry, which regulates the power industry, makers of nuclear power generation equipment and major electric utilities are all pinning their hopes on overseas markets as they are facing the challenge of maintaining related technological and human resources under the current situation.

But it should not be forgotten that exporting nuclear power technology is a private-sector business. The risks involved should be borne by the private-sector companies that are engaged in the business.

If the government undertakes the risks, it needs to show the business is beneficial for society as a whole.

Can the government make any argument that convinces many Japanese of the importance of supporting the Hitachi project?

The Abe administration and the business community have been working in tandem to promote exports of technology for nuclear power plants and other infrastructure.

As Hitachi Chairman Hiroaki Nakanishi is set to soon become the new chairman of Keidanren (Japan Business Federation), the nation's leading business lobby, the government's plan to support the company's nuclear project will be seen as a sign of mutual back-scratching between the public and private sectors if it lacks economic and policy rationality.

There are fundamental questions about Japan's efforts to sell its nuclear technologies overseas despite the devastating nuclear accident, in the first place.

The government and other organizations involved should rigorously re-examine the plan from a broad perspective and offer convincing and detailed explanations about its decision to the public.

Using erroneous data for 40 years...

January 24, 2018

Erroneous fuel data in use at Tokai No. 2 nuke plant for over 40 years

<https://mainichi.jp/english/articles/20180124/p2a/00m/0na/001000c>

The Japan Atomic Power Co. (JAPC) reported on Jan. 23 that it had been using erroneous data on the height of nuclear fuel rods inside the nuclear reactor at the Tokai No. 2 Power Station in Ibaraki Prefecture for at least 40 years.

- **【Related】** Prospect uncertain for Tokai No. 2 nuke plant restart despite extension application
- **【Related】** Utility files application to extend operating period of Tokai nuclear reactor for 20 years
- **【Related】** Nuclear plant operator to request 20-year extension for 'boiling water reactor'

The JAPC filed the report with the government's Nuclear Regulation Authority (NRA) on Jan. 23. According to the company, data indicating the height of nuclear fuel rods -- from the bottom of the reactor to the top of the rods -- was set around 5 centimeters lower than the actual height.

The Tokai No. 2 power plant in the village of Tokai is in the final phase of a safety screening by the NRA for possible reactivation. However, as the JAPC will need to check whether there is any other incorrect data in use, the screening is expected to be delayed.

Tout va bien

January 29, 2018

Work starts for industrial site near Daiichi plant

https://www3.nhk.or.jp/nhkworld/en/news/20180129_01/

Work has begun near the damaged Fukushima Daiichi nuclear power plant to prepare an area for a new industrial site.

A ground-breaking ceremony was held on Sunday in **Futaba Town**, Fukushima Prefecture, where the disabled plant is located.

Speaking at Sunday's ceremony, Futaba Mayor Shiro Izawa said reconstruction work has finally started in the town.

He expressed hope that the site would facilitate the town's recovery and the decommissioning work of the reactors.

The town's first new industrial site since the accident will be built in its northeastern district.

The district's relatively low level of radioactive contamination is paving the way for the early resettlement of residents and the resumption of business activities.

All residents of the town were ordered to evacuate soon after a major earthquake and tsunami in 2011 that destroyed the plant's nuclear reactors.

The municipality has allocated about 50 hectares for the project. The aim is to make the district partially usable later this year.

Reconstruction Minister Masayoshi Yoshino said that along with this project, his ministry plans to decontaminate housing sites so that residents can return.

The municipal office says it intends to lease part of the industrial site to companies taking part in the decommissioning of the reactors.

The officials say they also plan to set up prefectural archives to preserve records of the 2011 disaster and nuclear accidents. They also plan to build an industrial exchange center where workers can hold meetings and have meals.

M. Abe, what is "realism" when we talk about nuclear weapons?

January 26, 2018

Abe urges realism on nuclear disarmament

https://www3.nhk.or.jp/nhkworld/en/news/20180126_18/

Japan's Prime Minister says he wants to pursue a world free of nuclear weapons from a realistic standpoint, at a time when the imminence of the North Korean threat makes the US nuclear umbrella an absolute imperative.

Shinzo Abe's comments on Friday before the Upper House were in response to the leader of the ruling coalition partner, Komeito.

Natsuo Yamaguchi referred to the fact that Japan has not signed the legally-binding UN Treaty on the Prohibition of Nuclear Weapons. He called the treaty a "landmark effort" to create an international standard.

Yamaguchi said Japan should play a leading role, as the only country to have suffered atomic bombings, in bridging the gap between nuclear powers and other nations.

Abe responded that North Korea's nuclear and missile development programs constitute a grave and imminent threat to Japan's peace and security. He said maintaining deterrence with both conventional and nuclear weapons under the Japan-US Alliance is essential to counter such a threat.

Abe added that Japan needs to maintain a realistic stance by dealing appropriately with real security threats, while at the same time leading efforts to achieve a world without nuclear weapons.

The prime minister criticized North Korea for pushing ahead with its nuclear and missile programs, but he also welcomed the recent resumption of inter-Korean talks.

He said the opening ceremony of the PyeongChang Olympics next month will be an opportunity for him to urge South Korean President Moon Jae-in to keep applying maximum pressure on Pyongyang.

Abe added he wants to reaffirm the close cooperation between Tokyo, Seoul and Washington over the North Korean issue.

Only 20% of transmission lines capacity used by utilities!

Number and average usage rates of major utilities' core electric power transmission lines

Hokkaido Electric Power Co.	38 (19)	14.5% <14.1%>
Tohoku Electric Power Co.	34 (23)	12.0% < 9.5%>
Tokyo Electric Power Co.	77 (31)	27.0% <36.6%>
Chubu Electric Power Co.	77 (48)	20.4% <25.4%>
Hokuriku Electric Power Co.	10 (3)	14.8% <25.9%>
Kansai Electric Power Co.	50 (9)	25.5% <23.7%>
Chugoku Electric Power Co.	20 (4)	13.9% < 2.2%>
Shikoku Electric Power Co.	25 (0)	16.3% < - >
Kyushu Electric Power Co.	53 (2)	15.0% <26.7%>
Okinawa Electric Power Co.	15 (0)	14.2% < - >

Figures in () show number of lines whose "free capacity is zero."

Figures in < > show average usage rates of lines whose "free capacity is zero."

January 28, 2018

Major utilities using less than 20% of capacity of electric lines

<http://www.asahi.com/ajw/articles/AJ201801280022.html>

THE ASAHI SHIMBUN

The Asahi Shimbun

Usage rates of core electric power transmission lines operated by 10 major utilities are only 19.4 percent on average of capacity, contradicting a claim by these companies, according to a newly conducted analysis. The remaining free capacity can be used to transmit electricity generated by renewable energies such as wind power or solar power.

However, major electric power companies are refusing to allow the use of the free capacity for transmission of renewable energies, saying that there is no available capacity in many of those lines. The study was conducted by Yoh Yasuda, a specially appointed professor at Kyoto University's economics course on renewable energies. It marked the first time in Japan that usage of the core transmission lines was surveyed on a nationwide scale.

"The usage rates of transmission lines with 'zero free capacity' should be higher," Yasuda said. "In reality, however, they have more free capacity in some cases. It is incomprehensible. Why do utilities say that their free capacity is at zero? Why do they restrict connection of the equipment for renewable energies by citing the zero free capacities as a reason? They are required to make reasonable and highly transparent explanations to those questions."

The results of the analysis are scheduled to be announced in a symposium in Tokyo on Jan. 29.

Yasuda surveyed the 10 utilities' 399 high-voltage core electric power lines, such as 500,000 volts or 275,000 volts, based on data released by the Organization for Cross-regional Coordination of Transmission Operators (OCCTO).

The data covered the period from September 2016 to August 2017.

The usage rate is the ratio of capacities of electricity that actually flowed in the lines to the maximum capacities of electricity that can flow in a year.

According to the analysis of the data, the usage rate of Tokyo Electric Power Co. (TEPCO) was the highest at 27.0 percent while that of Tohoku Electric Power Co. was the lowest at 12.0 percent. The so-called “crowded transmission lines,” meaning that the usage rate temporarily exceeded 100 percent, occurred at least once in 60 lines. Of these, 22 lines were those of TEPCO. Meanwhile, 139 of the 399 lines were categorized as “free capacity is zero.” However, their average usage rate was only 23.0 percent, which was almost the same as the 19.4 percent of the 399 lines. According to the major utilities, zero free capacity is based on the premise that all existing power plants are running at their full capacities, including idled nuclear power plants and aged thermal power plants. Therefore, the actual flow of electricity through the transmission lines was much smaller. In a news conference held in November 2017, Satoru Katsuno, chairman of the Federation of Electric Power Companies of Japan, was asked about the circumstances that despite transmission lines having free capacity, equipment to transmit renewable energies could not be connected to those lines. At that time, he said, “We are putting priority on nuclear power as a baseload power source.” An official of a major utility also explained, “Free capacity cannot be measured based only on electricity that actually flowed in transmission lines.” In Europe and the United States, however, transmission lines are used based on the capacity of electricity that actually flows through the lines. As a result, renewable energies have been introduced in large quantities. Therefore, the economy ministry has begun to consider greater utilization of the free capacity. The ratio of transmission lines whose free capacity is zero is high for utilities in eastern Japan, such as Tohoku Electric Power, Chubu Electric Power Co., Hokkaido Electric Power Co. and TEPCO. On the other hand, the corresponding ratios for utilities in western Japan are low. For utilities such as Tohoku Electric Power and Hokkaido Electric Power, the usage rates of transmission lines with zero free capacities were lower than those of all the transmission lines under their jurisdictions. (This article was written by Toru Ishii, a senior staff writer, and Yu Kotsubo.)

TEPCO's "maliciousness" once again exposed

January 30, 2018

TEPCO refused in 2002 to calculate possible tsunami hitting Fukushima: ex-gov't official

<https://mainichi.jp/english/articles/20180130/p2a/00m/0na/017000c>

Tokyo Electric Power Co. (TEPCO), operator of the disaster-stricken Fukushima No. 1 Nuclear Power Plant, refused in 2002 to calculate the potential effects of tsunami in case of an earthquake off Fukushima Prefecture when a now-defunct nuclear watchdog told the utility to conduct an evaluation, the Mainichi Shimbun has learned.

- **【Fukushima & Nuclear Power】**

A former safety screening division official of the Ministry of Economy, Trade and Industry's Nuclear and Industrial Safety Agency (NISA) told the Mainichi Shimbun on Jan. 29 that TEPCO did not accept the agency's request even though the latter tried to convince the utility after the government released a long-term assessment report that a major earthquake could hit off the Pacific coast including areas off

Fukushima Prefecture, possibly triggering massive tsunami. This is the first time that exchanges between the then nuclear agency and TEPCO following the release of the government report have come to light. In July **2002**, the government's Headquarters for Earthquake Research Promotion released the long-term assessment report saying that an earthquake similar to the 1896 Sanriku Earthquake could hit off the Pacific from the northern Sanriku to Boso areas. The official held a hearing on TEPCO the following month as to whether the report would affect safety measures at the Fukushima No. 1 plant.

According to the official as well as the statement submitted by the government to the trial of a lawsuit filed by Fukushima nuclear evacuees against TEPCO and the state, NISA told the utility to calculate a possible earthquake-tsunami disaster off the coast from Fukushima to Ibaraki prefectures, pointing out that Tohoku Electric Power Co. had been considering conducting an assessment on areas quite far south. In response, TEPCO representatives showed reluctance, saying that the calculation would "take time and cost money" and that there was no reliable scientific basis in the assessment report. The TEPCO officials reportedly resisted for about 40 minutes on the matter. In the end, the agency accepted the utility's decision to shelve the earthquake-tsunami estimate.

In **2006**, NISA again requested TEPCO to prepare its nuclear plants for massive tsunami exceeding envisioned levels, but the company did not comply, before finally conducting a calculation in **2008**. The utility concluded that waves up to a height of 15.7 meters could hit the Fukushima plant, but did not take measures according to the estimate.

The former nuclear agency official said as someone involved in the screening of earthquake resistant measures it was very unfortunate that the accident at the Fukushima plant occurred, but stopped short of commenting on the legitimacy of the agency's handling of the matter, saying, "I can't put it in words casually."

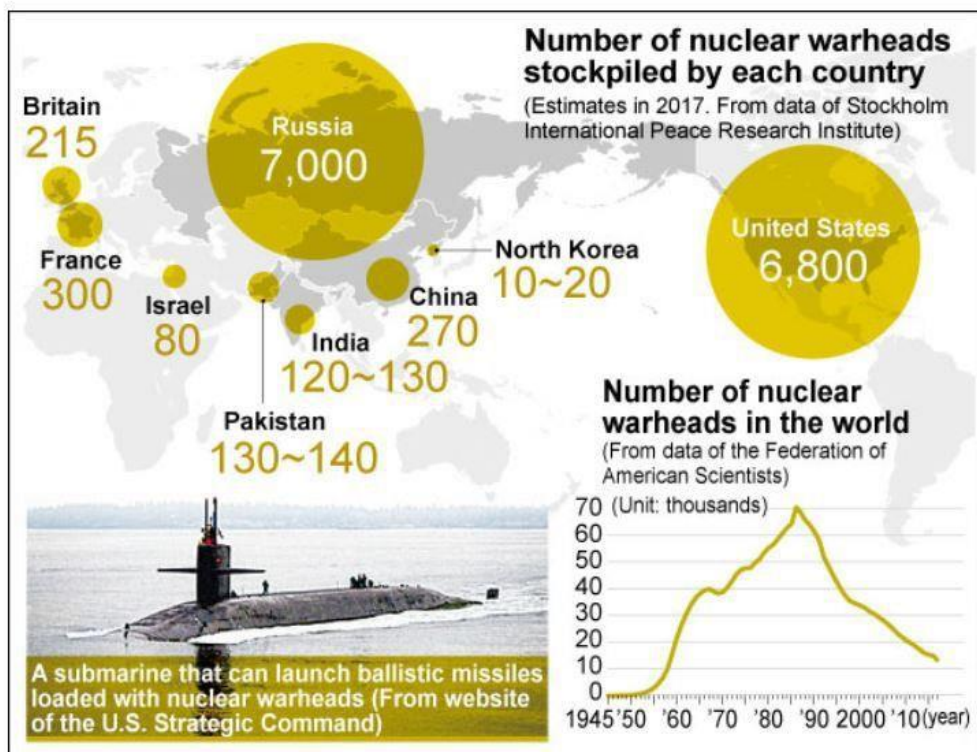
The attorney representing Fukushima nuclear evacuees in the redress suit commented that the finding exposes the maliciousness of TEPCO, while also pointing to the responsibility of the central government. A TEPCO public relations official, meanwhile, said that the company would not comment on the matter because the trial was ongoing.

Abe backs US nuke policy

February 4, 2018

Tokyo 'highly appreciates,' backs Trump's U.S. nuke policy

<http://www.asahi.com/ajw/articles/AJ201802040021.html>



The Asahi Shimbun

The Japanese government said on Feb. 3 that it “highly appreciates” the Trump administration's new U.S. Nuclear Posture Review (NPR), which effectively abandons the ideal of realizing a nuclear-free world. Tokyo welcomed the 2018 NPR, released on Feb. 2, which expands the possibility of the use of nuclear weapons, because it emphasizes that the United States will strengthen its commitment to the security of its allies.

However, in cities devastated by atomic bombings in 1945, citizens expressed a backlash against the latest NPR.

“It is going against the wishes of not only the citizens in atomic bombed cities but also those on the Earth,” said Shigemitsu Tanaka, chairman of the Nagasaki Atomic Bomb Survivors Council. “Other countries that have nuclear weapons, including North Korea, will promote nuclear development further.”

The Japanese government’s stance again clearly showed its reliance on the U.S. nuclear umbrella and other weapons.

On Feb. 3, the Japanese government issued a statement under the name of Foreign Minister Taro Kono in response to the 2018 NPR, the first since the 2010 NPR under the Obama administration.

Mentioning the continued development of North Korea’s nuclear and missile programs, the statement said that the international security environment “has been rapidly worsened since the release of the previous 2010 NPR.”

The new NPR said that nuclear weapons play a role in offering a feeling of relief to U.S. allies and suggested that the United States will strengthen the role.

As for the point, the Japanese government appreciated it, saying in its statement, “(The latest NPR) clearly articulates the U.S. resolve to ensure the effectiveness of its deterrence and its commitment to providing extended deterrence to its allies, including Japan.”

In the NPR, the United States also expressed its commitment to continuing efforts toward the ultimate global elimination of nuclear, biological and chemical weapons, strengthening of the Nuclear Non-

Proliferation Treaty (NPT) regime, and pursuing security conditions that could enable further nuclear reductions.

Tokyo also noted the point and added in its statement, "Japan will continue to closely cooperate with the United States to promote realistic and tangible nuclear disarmament."

Japan's stance of calling for the eradication of nuclear weapons while relying on the U.S. nuclear umbrella seems a contradiction.

"The government has a responsibility to protect the people's peace and security in a realistic manner," Kono has told reporters. "Nuclear deterrence and nuclear disarmament are not contradictory."

In 2017, the Treaty on the Prohibition of Nuclear Weapons was adopted at the United Nations. A nongovernmental organization, the International Campaign to Abolish Nuclear Weapons (ICAN), which worked for its adoption, was awarded the Nobel Peace Prize for its efforts.

Toshiyuki Mimaki, 75, a vice director of the Hiroshima prefectural council of A-bomb sufferers organizations, who visited Oslo in December for the Peace Prize awards ceremony, said, "I'm extremely angry."

Kunihiko Sakuma, 73, director of a different anti-nuclear group of the same name, criticized the Japanese government for its stance.

"The government is saying that it will serve as a bridge between countries that have nuclear weapons and countries that do not have them. But it is completely compliant to the United States. Japan will lose international trust," he said.

Russia questions Us new nuke policy



February 6, 2018

Russia questions US compliance with key nuke accord

https://mainichi.jp/english/articles/20180206/p2g/00m/0in/013000c#cxrecs_s

MOSCOW (AP) -- Russia challenged U.S. compliance with a key nuclear arms control treaty on Monday and warned that the Trump administration's new nuclear strategy lowers the threshold for using atomic weapons.

The dire assessment came as Moscow said it has met its own requirements under the New START agreement that was signed in 2010 and entered into force a year later. It restricts both the U.S. and Russia to 1,550 deployed strategic nuclear warheads on a maximum of 700 deployed intercontinental ballistic missiles and strategic bombers. The deadline to verify both countries' compliance was Monday.

The Russian Foreign Ministry said it now has 527 deployed intercontinental ballistic missiles and strategic bombers. It gave a tally of 1,444 strategic nuclear warheads. The U.S. reported it has been in compliance with the limits since August.

Russia acknowledged the U.S. position on meeting the targets, but voiced concern about the U.S. reconfiguring some submarines and bombers to carry conventional weapons. The Foreign Ministry said it doesn't have a way to confirm the reconfigured hardware was rendered incapable of carrying nuclear weapons.

Washington also "arbitrarily converted" some underground missile launch sites into training facilities, which wasn't spelled out in the treaty, the ministry said. It urged the U.S. work with Russia to resolve such matters.

The U.S. State Department insisted America was fully adhering to the deal.

"To meet the central limits of the treaty, the United States developed and utilized conversion procedures in full compliance with its treaty obligations," it said, adding it would cooperate with Russia to "address technical questions and issues related to the ongoing implementation of New START."

Russia-U.S. ties have been miserable for several years, but nuclear weapons reduction has been a strong point. The former Cold War foes have clashed most notably over Russia's conduct in Ukraine, the Syrian civil war and allegations Moscow meddled in the 2016 U.S. presidential election. The Trump administration's pivot to a new nuclear strategy could now affect arms control cooperation.

Last week, the Trump administration announced it would continue much of President Barack Obama's nuclear policy, while adopting a more aggressive stance toward Russia. Russia must be convinced it would face "unacceptably dire costs" for threatening even a limited nuclear attack in Europe, the new policy states.

The Pentagon-led review made clear the administration's view that Russian policies and actions are fraught with potential for miscalculation that could lead to an uncontrolled escalation of conflict in Europe.

It specifically pointed to a Russian doctrine known as "escalate to de-escalate," in which Moscow would use or threaten to use smaller-yield nuclear weapons in a limited, conventional conflict in Europe to compel the U.S. and NATO to back down. Consequently, the review said the U.S. would modify "a small number" of existing long-range ballistic missiles carried by Trident strategic submarines to fit them with smaller-yield nuclear warheads.

Russia slammed the U.S. report, saying it was founded on false assumptions about Moscow's intentions and contained worrying modernization plans.

The U.S. Nuclear Posture Review puts "in question our right to defend ourselves against an aggression that threatens the country's survival," the Foreign Ministry said in a weekend statement. "We would like to hope that Washington is aware of the high level of danger when such doctrinal provisions move to the level of practical military planning."

The ministry said Russia's military doctrine envisages the use of nuclear weapons to deter an aggression that threatens "the very existence of our state." It said Washington, however, took a no-limits approach

that could mean using nuclear weapons in "extreme circumstances" beyond defense against military operations.

"Even military scenarios are presented so ambiguously that it seems like the U.S. planners may view practically any use of military capability as a reason for delivering a nuclear strike against anyone they consider an 'aggressor,'" the ministry said.

It said U.S. plans to develop new low-yield nuclear weapons "will greatly increase the temptation of using them, especially considering the right to a disarming first strike as set out in the new U.S. doctrine."

"Assurances that the implementation of these plans will not lower the nuclear threshold can at least be interpreted as a desire to delude the international community," the ministry said.

"It is even more frightening that the U.S. military and other national security professionals firmly believe in their ability to model conflict scenarios that involve low-yield nuclear options. Quite to the contrary, we believe that this dramatic lowering of the threshold conditions can provoke a nuclear missile war even in a low-intensity conflict."

TEPCO ordered by court to pay damages to plaintiffs

January 7, 2018

TEPCO ordered to pay 1.1 bil. yen in damages to Fukushima residents

<https://mainichi.jp/english/articles/20180207/p2g/00m/0dm/064000c>

TOKYO (Kyodo) -- A court on Wednesday ordered Tokyo Electric Power Company Holdings Inc. to pay 1.1 billion yen (\$10.1 mil) in damages to Fukushima residents over nuclear meltdowns triggered by the March 2011 earthquake and tsunami.

The **Tokyo District Court** ordered the operator of the crippled Fukushima Daiichi nuclear power plant to pay the combined sum to 321 plaintiffs who had sought 11 billion yen in compensation, claiming they had suffered psychological damage from losing their livelihoods in the Odaka district of the city of Minamisoma.

Residents of the district, located within 20 kilometers of the power plant, were ordered to evacuate after the nuclear disaster until the order was partially lifted in July 2016.

While around 12,800 people lived in the district before the disaster, the population had dropped to about 2,400 as of December 2017, according to the city.

TEPCO said it will carefully review the ruling before deciding whether to accept it.

The company has already announced it will pay 8.5 million yen to each resident in the district under the state's guidelines.

But the plaintiffs in the latest suit said the amount was insufficient and sought an additional 32 million yen per person.

The magnitude-9.0 earthquake and ensuing tsunami struck northeastern Japan on March 11, 2011, resulting in a blackout at the plant and a consequent loss of reactor cooling functions. The plant suffered multiple meltdowns and hydrogen explosions.

"This problem is not gone, this is not just a local problem"

February 2, 2018

Fukushima nuclear disaster: Lethal levels of radiation detected in leak seven years after plant meltdown in Japan

<http://www.independent.co.uk/news/world/asia/fukushima-nuclear-disaster-radiation-lethal-levels-leak-japan-tsunami-tokyo-electric-power-company-a8190981.html>

Expert warns of 'global' consequences unless the plant is treated properly

Lethal levels of radiation have been detected at Japan's Fukushima nuclear power plant, seven years after it was destroyed by an earthquake and tsunami.

The Tokyo Electric Power Company (Tepco), which operated the complex and is now responsible for its clean up, made the discovery in a reactor containment vessel last month.

The energy firm found eight sieverts per hour of radiation, while 42 units were also detected outside its foundations.

A sievert is defined as the probability of cancer induction and genetic damage from exposure to a dose of radiation, by the International Commission on Radiological Protection (ICRP). One sievert is thought to carry with it a 5.5 per cent chance of eventually developing cancer.

Experts told Japanese state broadcaster NHK World that exposure to that volume of radiation for just an hour could kill, while another warned the leaks could lead to a “global” catastrophe if not tackled properly.

It came as Tepco said the problem of contaminated water pooled around the plants three reactors that is seeping into the ground has caused a major headache in its efforts to decommission the plant.

Thousands of workers have been hired by the company to as it attempts to secure the plant, which was the scene of the most serious nuclear accident since Chernobyl in 1986.

Three of its reactors went into a meltdown after the earthquake and tsunami which killed at least 15,000 people.

Tepco has admitted that it could be until 2020 until the contamination issue is resolved. Only then can it move onto the second stage of removing nuclear debris at the site, including the damaged reactors.

Richard Black, director of the Energy and Climate Intelligence Unit, said the high levels of radiation found in and around the reactor last month were “expected” and unlikely to pose a danger.

He told *The Independent*: “Although the radiation levels identified are high, a threat to human health is very unlikely because apart from workers at the site, no-one goes there.

"The high readings from fuel debris would be expected – the higher reading from the foundations, if confirmed, would be more of a concern as the cause is at present unclear. But as officials indicate, it might not be a genuine reading anyway.

"What this does demonstrate is that, seven years after the disaster, cleaning up the Fukushima site remains a massive challenge – and one that we're going to be reading about for decades, never mind years."

But Mycle Schneider, an independent energy consultant and lead author of the World Nuclear Industry Status Report, said that Tepco "hasn't a clue what it is doing" in its job to decommission the plant.

He added that the contaminated water that is leaking at the site could end up in the ocean if the ongoing treatment project fails and cause a "global" disaster, he told *The Independent*.

"Finding high readings in the reactor is normal, it's where the molten fuel is, it would be bizarre if it wasn't," he said.

"I find it symptomatic of the past seven years, in that they don't know what they're doing, Tepco, these energy companies haven't a clue what they're doing, so to me it's been going wrong from the beginning. It's a disaster of unseen proportions."

Mr Schneider added that the radiation leaks coupled with the waste from the plant stored in an "inappropriate" way in tanks could have global consequences.

"This is an area of the planet that gets hit by tornadoes and all kinds of heavy weather patterns, which is a problem. When you have waste stored above ground in inappropriate ways, it can get washed out and you can get contamination all over the place.

"This can get problematic anytime, if it contaminates the ocean there is no local contamination, the ocean is global, so anything that goes into the ocean goes to everyone."

He added: "It needs to be clear that this problem is not gone, this is not just a local problem. It's a very major thing."

The Independent contacted Tepco for comment, but the energy giant had not responded at the time of publication.

January 31, 2018

High Radiation at Fukushima Daiichi 7 Years on

<https://www3.nhk.or.jp/nhkworld/nhknewslines/nuclearwatch/highradiationatfukushimadaiichi7years>
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New data from Japan's crippled nuclear plant underscore the challenges of decommissioning. Workers at the Fukushima Daiichi site found extremely high radiation in a reactor during a remote-controlled inspection.

Tokyo Electric Power Company recorded up to 8 sieverts per hour under the core of reactor 2. Experts say that level would kill a person in an hour.

Tokyo Electric staff want to remove fuel debris from all the reactors that melted down in 2011.

They hope to figure out a method during the fiscal year through March 2020.

TEPCO ordered by court to pay damages (2)

February 8, 2018

TEPCO ordered to pay 1.1 billion yen to evacuees in Fukushima

<http://www.asahi.com/ajw/articles/AJ201802080065.html>

THE ASAHI SHIMBUN

Tokyo Electric Power Co. has been ordered to pay 3.3 million yen (\$30,000) each to 318 people who were forced to flee their hometown in Fukushima Prefecture after the 2011 nuclear disaster.

However, the plaintiffs are unhappy as they sought 10 times that amount.

"We are stripped of our hometown, livelihood and life, and Odaka will not return to what it used to be," 76-year-old Isao Enei of Minami-Soma said at a news conference after the Feb. 7 verdict at Tokyo District Court. "I am sorry that the judges did not visit and see the situation of Odaka for themselves."

The plaintiffs are now considering appealing as they had initially sought 33 million yen each in additional damages in the lawsuit.

"It is significant in a way in recognizing 'damages for the loss of a hometown,'" said Junichiro Hironaka, the plaintiffs' lead lawyer. "But the amount of compensation ordered does not correspond to the actual damages they suffered."

In handing down the ruling, Presiding Judge Yuko Mizuno said that the plaintiffs' "right to a stable life in a place that was the foundation of their livelihood had been breached."

TEPCO said it will respond to the court decision after studying it in detail.

The plaintiffs lived in Minami-Soma's Odaka district before the triple meltdown at TEPCO's Fukushima No. 1 nuclear power plant in March 2011.

Odaka was located within the 20-kilometer no-entry zone surrounding the plant from which residents were forced to evacuate.

The plaintiffs contended that TEPCO was liable for causing psychological damage as they were displaced and lost their hometown.

The total that TEPCO must pay to the 318 plaintiffs falls a fraction short of 1.1 billion yen, but the court dismissed claims by three plaintiffs on the grounds that they lived overseas at the time of the accident or for other reasons.

The verdict was the fourth that has been handed down in regard to about 30 similar lawsuits that have been brought across the nation.

In the three other suits, the plaintiffs claimed in the district courts that the government and TEPCO had been negligent, but in the latest case the court was only concerned with the amount of compensation.

The plaintiffs argued for compensation for damages stemming from the evacuation, as well as compensation for a loss of various general benefits that they would have enjoyed if they had continued to reside in their hometown.

The power company rejected the plaintiffs' claim for additional compensation, citing the payment already made of 8.5 million yen per victim of the nuclear disaster in the district based on the government's "interim guidelines" for compensation.

It insisted that the plaintiffs' claim that "Odaka has been lost forever" was not proven.

The evacuation order was lifted for most of the district in July 2016.

But the court stated that even after it became possible for residents to return (to Odaka), it "constitutes a serious violation of the plaintiffs' life if the foundations of their livelihood were considerably changed."

TEPCO argued that the government's interim compensation guidelines were reasonable.

But the court rejected it, saying the district court will not be bound by the government's guidelines.

Rulings for similar lawsuits are expected in March at the Kyoto District Court and Tokyo District Court.

"Japan has sold its soul"

February 7, 2018

EDITORIAL: By backing Trump nuclear policy, Japan has sold its soul

<http://www.asahi.com/ajw/articles/AJ201802070031.html>

Even though Japan is the only nation to have experienced the horror of atomic bombing, it blindly followed the Trump administration's tough new nuclear policy.

This reveals a complete lack of interest in efforts to achieve a nuclear-free world.

In a statement, Foreign Minister Taro Kono said Japan "highly appreciates" Trump's sweeping Nuclear Posture Review (NPR) to allow the United States to flex its nuclear muscle in the name of nuclear deterrence.

This new policy promotes the use of smaller nukes that would be easier to use, possibly even against non-nuclear attacks.

"Nuclear deterrence and nuclear disarmament are not mutually exclusive," Kono said.

By its very nature, the NPR runs counter to the current of nuclear disarmament.

What will happen if, by lowering the bar on the use of nuclear weapons, a nuclear war erupts for an unforeseeable reason?

A study commissioned by the Foreign Ministry four years ago estimated that in a modern city of around 1 million souls, about 270,000 people would die if a Hiroshima class weapon detonated. A hydrogen bomb would take approximately 830,000 lives.

Japan understands all too well that nuclear weapons are inhumane, and it has a duty to lead the world in nuclear disarmament. Yet, this government thinks of nuclear issues only within the narrow framework of the Japan-U.S. alliance.

The U.S. NPR coldly dismisses the Treaty on the Prohibition of Nuclear Weapons, passed by the United Nations last year, as "completely unrealistic." In going along with this policy, has Kono lost all interest in seeking common ground with international public opinion that supports this treaty?

In East Asia's security environment, it is a fact that Japan is protected by the U.S. nuclear umbrella. But German Foreign Minister Sigmar Gabriel, whose nation shares the same protection, criticized the NPR to the effect that an escalation of the nuclear arms race will jeopardize Europe.

He argued that is precisely why Europe must move toward a new arms management and disarmament system.

Feb. 5 was the deadline set for the so-called New START Treaty, signed by the Obama administration and Russia, to meet the treaty's central limits on strategic arms. Both the United States and Russia announced their successful attainment of the target.

The world is now at a crucial crossroads. Will it proceed with nuclear arms expansion and proliferation, or with nuclear disarmament and abolition?

In spring 2016, Prime Minister Shinzo Abe and President Barack Obama stood side-by-side in Hiroshima and expressed their joint resolve to realize a world without nuclear weapons. If Abe thinks he can scrap this resolve because the U.S. administration has changed, he is shamelessly irresponsible.

For years, the Japanese government was in the habit of presenting an annual nuclear abolition resolution to the United Nations, acting as a "bridge" between the world's nuclear and non-nuclear powers.

Japan must remind itself of this responsibility now.

Precisely because America is an ally, Japan must put a brake on the Trump administration's escalation of nuclear might and strive to explore an objective resolution to the North Korean problem.

The government also needs to work together with hibakusha organizations and hone its diplomatic skills to better communicate its resolve to rid the world of nuclear weapons.

Japan ought to be doing all these things right now.

Safe enough

February 11, 2018

No Fukui evac plan needed for simultaneous nuclear accidents: Cabinet documents

<https://www.japantimes.co.jp/news/2018/02/11/national/no-fukui-evac-plan-needed-simultaneous-nuclear-accidents-cabinet-documents/#.WoGHNXwiGos>

JJI

FUKUI – The central government and the Fukui Prefectural Government have determined there is no need to craft a new evacuation plan in case of a twin nuclear accident there, Cabinet Office documents show.

In a meeting last month, state and prefectural officials confirmed that simultaneous accidents at the Takahama and Oi nuclear power plants can be dealt with under the plants' existing evacuation plans, which were compiled separately by each plant, said the documents, which were obtained Sunday.

The meeting involved officials from the Cabinet Office, the Fukui, Shiga and Kyoto prefectural governments, and Kansai Electric Power Co., which runs the atomic plants.

The consensus at the meeting was that simultaneous nuclear accidents can be dealt with under the existing plans because the evacuation sites don't overlap, a Fukui prefectural official said.

The two nuclear plants are about 13.5 km apart. About 160,000 to 180,000 people live within 30 km from each of the plants.

Fukushima workers don't find it so romantic



February 17, 2018

Media reports de-romanticize the cleanup work on the Fukushima nuclear power plant

<https://www.japantimes.co.jp/news/2018/02/17/national/media-national/media-reports-de-romanticize-cleanup-work-fukushima-nuclear-power-plant/#.WomJyHwiGos>

by Philip Brasor

Contributing Writer

Most of the reliable reporting about the clean-up of the Fukushima No. 1 nuclear power plant since it suffered three meltdowns in March 2011 has been from on-site workers. Even when articles appear in major media outlets about the situation at the crippled reactor, it's usually presented through the anonymous or pseudonymous firsthand experiences of the men on the front lines.

Some have become famous. The public would not know much about the situation without Kazuto Tatsuta's manga series, "Ichiefu" (or "1F" — shorthand for "Fukushima No. 1"), the writings of former letter carrier and cleanup worker Minoru Ikeda, or the books and tweets of a man known as "Happy" who has been working as an employee at the plant.

Because these individuals directly address what they and their colleagues have gone through on a daily basis, the work they do has been de-romanticized. It's not as heroic as initial foreign media reports made it out to be. If anything, it's tedious and uncomplicated.

Workers are concerned about those matters that all blue-collar laborers worry about — pay and benefits — which isn't to suggest they don't think about the possible health risks of radiation exposure. Last October, Ikeda talked to the comedy duo-cum-nuclear power reporters Oshidori Mako & Ken on the web channel Jiyu-na Radio about potential false reports on radiation levels around Fukushima, although also touching on health issues that have not been reported by the mainstream media. His main point was that serious illnesses may not manifest themselves until years after workers quit the site and thus no longer

qualify for worker's compensation. In other words, the workers understand the risk. They just want to be fairly compensated for it.

In that regard, one of the most common gripes from on-site reporters is the "hazard compensation" (*kiken teate*) workers are supposed to receive. Recently, Tokyo Electric Power Company Holdings Inc. (Tepco), which is both responsible for the accident and in charge of the cleanup, announced a reduction in outlay associated with the hazard compensation, which is paid as a supplement to wages. This compensation can add as much as ¥20,000 a day to a worker's pay, but now that Tepco says radiation levels have dropped, they will no longer provide the compensation, or, at least, not as much as they have been paying.

A special report in the Jan. 22 Tokyo Shimbun attempted to explain how this change will affect workers and the work itself. In March 2016, Tepco divided the work area into three zones: red, for high radiation levels; yellow, for some radioactivity; and green, for areas that had no appreciable radioactivity. Workers interviewed by Tokyo Shimbun say they've never liked this system because they feel it "has no meaning." Rubble from the red zone is routinely transferred to the green zone, where heavy machinery kicks up a lot of dust, so there's no physical delineation between zones when it comes to radiation levels. On the ground, this reality is addressed by subcontractors who make their employees in the green zone — which constitutes 95 percent of the work site — wear extra protective gear, even though Tepco doesn't require it.

But the workers' main gripe about the zone system is that most of them ended up being paid less and, as on-site workers have often explained, they weren't getting paid as much as people thought they were. Contractors advertise high wages to attract workers, but then subtract things like room and board, utility fees, clothing and equipment. And it's been known for years that the hazard compensation was more or less a racket gamed by the contractors standing between Tepco, which distributes the compensation, and the workers, who are supposed to be the beneficiaries. There can be up to six layers of contractors between Tepco and a worker, and each layer may take a cut of the compensation. In 2014, four workers sued Tepco for ¥62 million, saying they worked at the site but received none of the promised hazard compensation.

That situation still seems to be in play, according to Tokyo Shimbun. Several subcontractors told the newspaper they receive the compensation for their workers not from Tepco directly but from the contractor that hired them, and in most cases the compensation has been reduced, sometimes by more than half. One subcontractor said that a company above them actually apologized for the paucity of the compensation they were handing down because their "revenues had decreased." The man known as Happy told Tokyo Shimbun that Tepco is ordering less work at the site, which means existing subcontractors may cut wages in order to compete for these dwindling jobs. Some contractors have even invested in the robots that are used to inspect the reactor, because they want the work to continue without interruption.

It was common practice to rotate out workers toiling in the highly radioactive areas regularly and quickly and then re-assign them to low-radiation areas. After some time they may have been rotated back into the high-radiation area, where pay is more. The man known as Happy says this sort of system now seems to be on the way out, and that makes sense if radiation is actually decreasing. However, he's afraid that if there is another emergency that requires a sudden influx of workers, they won't be available.

Tepco is obviously thinking of its bottom line, and the man known as Happy thinks the work should be managed by the government, which is contributing tax money to the cleanup. However, it seems only the Japan Communist Party is reading the dispatches from the plant. Last May, Japanese Communist Party lawmaker Taku Yamazoe questioned Tepco President Naomi Hirose about the hazard compensation in the Diet, and why the structure of payments to workers wasn't clear.

Hirose said that while his company intends that the money goes to workers, he cannot say for sure that is the case because of the circumstances surrounding Tepco's relationships with contractors. With work on the wane, it seems unlikely that those workers will see any of the money that's owed to them, retroactively or otherwise.

Exporting Fukushima peaches

February 18, 2018

Fukushima fruit exports to Southeast Asia peachy as contamination fears dissipate

<https://www.japantimes.co.jp/news/2018/02/18/national/fukushima-fruit-exports-southeast-asia-peachy-contamination-fears-dissipate/#.WomJY3wiGos>

Fukushima Minpo

Among peaches Japan exported to Thailand, Malaysia and Indonesia last year, those produced in Fukushima Prefecture led the way, retaining their No. 1 status for two years in a row.

According to the prefectural government, 48 tons of Fukushima peaches were shipped to the three countries in 2017, up 57 percent from the previous year, thanks to efforts by local producers and distributors to acquire new customers.

With bans from the Fukushima nuclear disaster still in place around Asia, however, Fukushima officials said they will continue calling on the central government to negotiate with biggest customers of Japanese peaches, Hong Kong and Taiwan, to encourage them to lift bans on produce from the prefecture.

According to data compiled by the prefectural government based on Finance Ministry trade statistics and transaction data from local farm co-ops, Thailand topped the list of Fukushima peaches importers for two years in a row, with shipments in 2017 totaling 31.1 tons, or 1.5 times higher than the previous year.

Fukushima peaches accounted for 94.8 percent of its peach imports from Japan.

Exports to Malaysia meanwhile reached 15 tons, making up 72.5 percent of its Japanese peach imports, while exports to Indonesia totaled 1.5 tons, or 51.7 percent of its Japanese peach imports. Both amounts more than doubled from a year ago.

In Thailand, the number of stores selling Fukushima peaches rose to 70 from roughly 50, mainly in Bangkok, after the prefectural government entrusted a local importer to take steps to bolster sales, such as by dispatching staff to the stores when the peaches are in season.

Fukushima Gov. Masao Uchibori visited Malaysia in August to promote the fruit, resulting in a deal to export 15 tons to the nation last year.

Produce other than peaches has been making headway in Southeast Asia as well, especially in nations with high economic development and relatively fewer negative rumors about Fukushima.

Fukushima exported 77 tons of rice to Malaysia in 2017, up from none a year before, and 16.3 tons of persimmons to Thailand.

To accelerate exports of local produce, the prefectural government will put together a new strategy before the end of March. It plans to analyze different preferences and consumers' purchasing power by nation and region and set target markets for each item.

It will then draw up measures to create production systems that meet the needs of those markets and find ways to promote the products.

"The efforts of people involved, including producers, farm co-ops and importers, have produced good results," an official with Fukushima's division for promoting local produce said. "We will continue working on developing effective sales channels to win the support of overseas consumers."

This section features topics and issues from Fukushima covered by the Fukushima Minpo, the largest newspaper in Fukushima Prefecture. It was previously called Fukushima File. The original article was published on Feb. 2.

TEPCO forced to pay damages for old man's suicide

February 21, 2018

TEPCO ordered to pay damages over centenarian's suicide after nuclear disaster

<https://mainichi.jp/english/articles/20180221/p2a/00m/0na/006000c>

FUKUSHIMA -- Tokyo Electric Power Co. (TEPCO) must pay compensation over the suicide of a centenarian who took his own life shortly before he was to be forcibly evacuated from his hometown due to the Fukushima nuclear disaster in 2011, a local court has ruled.

- **【Related】** TEPCO ordered to pay 1.1 bil. yen in damages to Fukushima residents
- **【Related】** Voluntary evacuees win compensation over Fukushima nuclear disaster
- **【Related】** Daughter sues TEPCO over father's death from kidney disease after 3.11 disaster

The Fukushima District Court ordered the power company on Feb. 20 to pay 15.2 million yen in damages to the bereaved family of Fumio Okubo from the Fukushima Prefecture village of Iitate, who died at the age of 102.

In the ruling, the court recognized the causal relationship between the disaster at the Fukushima No. 1 Nuclear Power Plant and Okubo's suicide.

"An unbearable mental burden caused by the nuclear accident had a huge impact on the victim's decision to take his own life," Presiding Judge Hideki Kanazawa said as he handed down the ruling.

TEPCO's public relations division commented that the company "will sincerely respond to the case after closely examining the ruling."

According to the legal team for the plaintiffs, this is the third court case in which TEPCO has been held responsible over the suicide of an evacuee from a region affected by the nuclear crisis.

According to the ruling, Okubo was born and raised in Iitate. In his post-retirement life, he had enjoyed strolling in his neighborhood and chatting with friends while drinking tea, until the area was hit by the nuclear disaster triggered by the March 11, 2011 Great East Japan Earthquake and ensuing tsunami. Okubo hanged himself at his home on the morning of April 12, the day after he learned from a TV news program that Iitate, which is located some 30 to 50 kilometers northwest of the power station, was designated as an evacuation zone.

In the trial, the plaintiffs demanded 60.5 million yen in compensation, claiming that the evacuation forced Okubo to take his own life. "He had all his friends and assets as well as motivation in life in the village, and

the only cause of his suicide we can think of is the forced evacuation due to the nuclear accident," a representative of the bereaved family said in the trial.

TEPCO argued that the causal relationship between the disaster and Okubo's suicide remained unclear. Presiding Judge Kanazawa recognized that Okubo's mental anguish caused by his loss of village life, which he had continued for more than 100 years, and a lack of prospect for returning home ultimately triggered his suicide.

At the same time, the presiding judge deemed that Okubo's will to avoid burdening his family after evacuation also contributed to his decision to take his own life, and determined that the ratio of TEPCO's responsibility for the centenarian's suicide was 60 percent.

Mieko Okubo, 65, the wife of Okubo's second son, expressed appreciation for the ruling.

"I finally can say to my father-in-law, 'Please rest in peace,'" she said.

Okubo worked until he was nearly 80 and never lived outside Iitate. He sang his favorite song "Sumo Jinku," which is performed during sumo wrestlers' regional tours, in front of nearly 100 villagers who gathered at a party to celebrate his 99th birthday. He was also looking forward to visits by his grandchildren.

Mieko, who married Okubo's second son more than 40 years ago, was Okubo's main conversation partner during the day because her husband was often away from home for work.

Whenever she jokingly told him, "I feel as if I married you," he often laughed.

However, the nuclear disaster deprived the Okubo family of the peaceful life they had enjoyed. When Okubo saw a TV program reporting that an evacuation order would be shortly issued to the village, Okubo said, "I don't want to leave this village. I've lived too long."

He did not eat dinner that night, even though his favorite boiled dish was served. The following morning, Mieko went to Okubo's room to notify him that breakfast was ready, only to find that he had hanged himself.

"The village was everything for him. Ordering him to leave Iitate was tantamount to telling him to die," Mieko said.

Mieko and other members of Okubo's family launched the damages suit in July 2015 in a bid to have TEPCO admit to its responsibility for his suicide. While some people criticized the family over their legal action, the family received nearly 100 letters of encouragement from all over Japan.

The family members, who are now taking shelter at an apartment in Minamisoma, Fukushima Prefecture, intend to return to their home in Iitate by the end of this year.

Mieko and her family hope that TEPCO will acknowledge its responsibility for Okubo's suicide and apologize. "I'd like TEPCO officials to offer an incense stick" for the soul of Okubo, Mieko said.

February 20, 2018

TEPCO ordered to pay damages for 102-year-old man's suicide

THE ASAHI SHIMBUN

<http://www.asahi.com/ajw/articles/AJ201802200039.html>

FUKUSHIMA--A court here acknowledged that a 102-year-old man took his life rather than endure forced evacuation due to the 2011 nuclear disaster and ordered plant operator Tokyo Electric Power Co. to pay 15.2 million (\$142,300) in damages to his family.

The Fukushima District Court said in its Feb. 20 ruling that the planned mandatory evacuation of Iitate was behind Fumio Okubo's suicide, adding that the prospect of being forced from his home must have triggered "unbearable psychological strain."

According to the plaintiffs' legal team, the ruling was the third by a court recognizing a link between the 2011 triple meltdown at the Fukushima No. 1 nuclear power plant and the suicide of an individual affected by the disaster.

Okubo, a resident of Iitate, killed himself after watching TV news on the evening of April 11, 2011, a month after the accident unfolded. The program reported that the government would designate Iitate as a zone that should prepare to evacuate.

He was found dead in his room the following morning.

In the lawsuit, filed in July 2015, Mieko Okubo, his daughter-in-law, and two other plaintiffs contended that Okubo had no other reason to take his life except that the planned evacuation weighed heavily on him.

TEPCO maintained in court that Okubo suffered from health problems prior to the nuclear disaster and that the correlation between his death and the disaster was slim, even if it did indeed exist.

The plaintiffs had sought 60.5 million yen in compensation.

TEPCO ordered to pay \$142,000 in damages

https://www3.nhk.or.jp/nhkworld/en/news/20180220_26/

A Japanese court has ordered Tokyo Electric Power Company to pay about 142,000 dollars in damages to the family of an elderly man who killed himself amid an evacuation order during the 2011 Fukushima nuclear crisis.

After an earthquake and tsunami struck northeastern Japan on March 11, 2011, the Fukushima Daiichi plant experienced nuclear meltdowns. The village of Iitate, where the man lived, was subsequently designated an evacuation zone.

One day after learning that he would have to leave his lifelong home, 102-year-old Fumio Okubo committed suicide.

Members of his family filed a lawsuit demanding that the utility pay a total of 568,000 dollars in damages.

They said Okubo killed himself in the face of an order to evacuate amid the nuclear crisis.

At issue in court was a causal relationship between the suicide and the nuclear disaster.

In the ruling on Tuesday, presiding judge Hideki Kanazawa at the Fukushima District Court said Okubo had lived in the village his entire life and suffered unbearable pain over the evacuation order as he felt he would likely die before he could return home.

After the ruling was handed down, Mieko Okubo, the wife of Fumio Okubo's son, said she feels her father-in-law's wishes have been heard. She said she hope he will now rest in peace, adding that TEPCO should offer sticks of incense for him.

What does WTO know about nuke safety?

February 23, 2018

WTO backs Japan complaint against South Korea's Fukushima import ban

<https://www.japantimes.co.jp/news/2018/02/23/national/wto-backs-japan-complaint-south-koreas-fukushima-import-ban/#.WpE1C3wiGos>

by Tomohiro Osaki

Staff Writer

Tokyo on Friday welcomed a World Trade Organization panel's ruling that Seoul's continued import ban on seafood from Fukushima Prefecture — home to the 2011 nuclear disaster — and other parts of Japan amounts to the nation taking "arbitrarily and unjustifiably" discriminatory measures.

A dispute settlement panel under the WTO published a report Thursday detailing its ruling in favor of Japan's complaint against a blanket import ban imposed by South Korea on all fishery products from the prefectures of Fukushima, Miyagi, Iwate, Aomori, Ibaraki, Tochigi, Gunma and Chiba.

While acknowledging Seoul's measures against seafood from Fukushima and the other nearby prefectures were justified initially, the WTO report said maintaining the ban to date is "more trade-restrictive than required," and recommended that the ban on 28 kinds of fish be lifted, as requested by Japan.

South Korea, the report said, failed to comply with a WTO agreement stipulating that sanitary measures by member countries do not "arbitrarily or unjustifiably discriminate."

The panel also said a South Korean requirement that Japanese exporters of all marine products submit certificates of inspection if small amounts of radioactive cesium or iodine are detected is an effective barrier to fair trade.

In Tokyo, Chief Cabinet Secretary Yoshihide Suga welcomed the ruling.

"We believe our claims have been duly taken into account and think highly of the judgment" by the panel, he said, adding that Japan will "swiftly" urge South Korea to scrap its ban on seafood.

Suga also said Tokyo will further "strengthen efforts" to alleviate or remove regulatory measures implemented by other countries against Japanese food due to fears over the nuclear disaster.

As of Thursday, countries including the U.S., China and Singapore have partial import bans on Japanese food.

While Japan welcomed the ruling, the panel's judgment is not final. South Korea said Friday that it will appeal to a higher panel, suggesting Japan still faces a thorny road ahead.

"The Korean government will appeal (the ruling) to safeguard public health and safety," the Ministry of Trade, Industry and Energy, was quoted as saying by the Yonhap news agency.

"Regardless of the decision, the current import ban will be put in place until the WTO's dispute settlement procedure ends."

The final decision is expected to be handed down in the summer at the earliest.

Suga expressed disappointment over Seoul's response.

"We find the appeal extremely regrettable. We will take appropriate steps to make sure our claims will be acknowledged by a higher-level committee, too," Suga said. "Needless to say, we will also firmly urge South Korea to sincerely and swiftly redress measures recognized by the panel as in violation of the WTO agreement."

Since the 2011 nuclear meltdowns at the Fukushima No. 1 power plant, South Korea has established one of the world's most stringent measures against Japanese food in general.

In addition to the import ban, South Korea slaps Japanese food products with pre-export testing requirements that don't apply to products from anywhere else, the WTO report noted.

In the pre-export testing, detection of a minuscule amount of cesium leads to additional testing for 17 other radionuclides, including plutonium, it said.

"What makes South Korea stand out is that it has expanded its regulatory measures against Japanese exports and to this day still maintains significant barriers amid a global trend toward loosening up regulations against Japanese food," a farm ministry official told The Japan Times.

Information from Kyodo added

Phasing out bill should be debated in Diet

February 24, 2018

EDITORIAL: Opposition CDP's zero nuclear bill merits earnest debate in Diet

<http://www.asahi.com/ajw/articles/AJ201802240020.html>

In what amounts to a direct challenge to the Abe administration, the main opposition Constitutional Democratic Party of Japan has drafted a bill to phase out nuclear power generation.

The proposal deserves serious consideration by the Diet and should serve as a platform to review the government's frayed energy policy.

The CDP plans to submit the bill to the Diet in March after rallying support from other opposition parties.

The central provision would require the government to pursue a policy goal of shutting down all nuclear reactors in Japan within five years after the legislation takes effect.

It proposes an ambitious goal for expanding the use of renewable energy sources, cast as the principal ingredient of the strategy, that far exceeds the target set by the government.

The CDP's bill is a full frontal challenge to the energy policy adopted by the Abe administration and the ruling camp, which views atomic energy as a vital core power source.

Since the 2011 Fukushima nuclear disaster, the Japanese public has shown profound distrust in the government's energy policy. Opinion polls have repeatedly shown a majority are opposed to restarting offline nuclear reactors.

While working on the bill, the CDP held meetings with citizens across Japan to hear their concerns about nuclear power.

The party's move has also been prompted by a powerful global energy trend: the decline of nuclear power and rapid rise of renewable energy.

While many of the elements of the bill make good sense, certain provisions concerning the time frame and process of pursuing the policy goal raise issues that need more careful consideration.

Terminating nuclear power generation within only five years would cause some "side effects." Japan's carbon dioxide emissions will remain at high levels, for instance, due to expanded use of thermal power generation by burning fossil fuels. Growth of renewable power generation could lead to increases in electricity charges.

The CDP's bill doesn't make clear how to tackle these problems, which need to be overcome to push forward without nuclear power.

The party needs to bolster the feasibility of its energy policy proposal by devising specific and convincing steps to deal with these challenges.

The Abe administration is currently working on a new “basic energy plan,” a legally mandated medium- to long-term energy policy blueprint.

The advisory council tasked with the work has indicated that the administration intends to maintain its basic energy policy stance, which stresses the importance of making active use of nuclear and coal-burning thermal power generation.

There has been no in-depth policy debate on key challenges facing the nuclear power policy, such as how to dispose of radioactive waste from nuclear power plants and the dismal outlook of the nuclear fuel recycling program. Government policymakers and advisers have also failed to consider seriously how much growth of renewable power generation we can realistically expect.

The Diet, which is composed of elected representatives of the people, has a responsibility to exert pressure on the reluctant government into responding to radical changes in the energy situation. Even though it has an overwhelming majority in both houses of the Diet, the ruling coalition of the Liberal Democratic Party and Komeito should not be allowed to let the CDP’s energy bill wither on the vine. The government’s decisions concerning which energy sources should be used in what way directly affect people’s lives and that of society.

The submission of the bill should trigger serious and constructive debate between the ruling and opposition camps to lay out a new vision for the nation’s energy future and a road map to realize it.

Not all evacuees want to go home

February 21, 2018

Japan wants Fukushima evacuees to go home. They're not so sure.

<https://www.csmonitor.com/World/Asia-Pacific/2018/0221/Japan-wants-Fukushima-evacuees-to-go-home.-They-re-not-so-sure>

About 160,000 people left their homes in 2011, after an earthquake and tsunami triggered the worst nuclear disaster since Chernobyl. Today, the government says it's safe for many to return. But regaining residents' trust remains a challenge.

February 21, 2018 Yonezawa, Japan—For Toru Takeda, the best and worst parts of life in Yonezawa are the same: snow. Located in the mountains 150 miles north of Tokyo, the city typically lies under a few feet every winter. It snows so much that many streets in Yonezawa are equipped with sprinklers that spray warm underground water to keep them clear.

Mr. Takeda is still getting used to the sheer amount of snow and the inconveniences that come with it. Train delays. Slow traffic. Shoveling. It doesn’t snow nearly as much in Fukushima City, his hometown, an hour-long drive away in good weather.

But snow has its benefits when it melts. “The soil here is rich because the snow melts slowly,” Takeda says one morning at a diner in downtown Yonezawa. He’s certain that the gradual thaw makes the fruits and vegetables grown in the region some of the best in Japan. Taking a sip of coffee, he adds solemnly, “The water and soil in Fukushima [Prefecture] is still contaminated.”

It’s been almost seven years since the Tohoku earthquake and tsunami struck the northeast coast of Japan and triggered a meltdown at the Fukushima Daiichi nuclear power plant, the world’s worst nuclear disaster since Chernobyl. The cleanup is projected to cost \$200 billion and take up to 40 years. Yet already many of the area’s 160,000 evacuees have started to return.

The Japanese government says it's safe, but Takeda isn't convinced. His faith in authority was shattered by the botched response to the meltdown. Today, he remains suspicious of everything from regulatory agencies to utility companies, to say nothing of food safety and, of course, nuclear power. Whether the government is able to regain Takeda's trust – and the trust of thousands of others like him – is an important test of its ability to revive the cities and towns of Fukushima.

"We don't believe the government anymore," Takeda says, speaking for himself, his wife and daughter, and about 20 other evacuees he knows who have refused to leave Yonezawa. "I'll do anything and everything I can to make sure we can stay," he declares. That includes going to court.

Man on a mission

It all started last March, when the Fukushima prefectural government ended unconditional housing subsidies to nearly 27,000 people who left areas not designated as mandatory evacuation zones – including Takeda and many others in Yonezawa. Faced with the choice of returning to areas they fear are still unsafe or paying rent many can't afford, they've chosen neither. Instead, they've stayed in their apartments and refused to pay rent. The local public housing agency tolerated this for a while. Then, in September, it filed an eviction lawsuit against the so-called voluntary evacuees, who quickly hired a team of lawyers in response.

"The Japanese government and Tepco caused the disaster," Takeda says, referring to Tokyo Electric Power Company, the operator of the Fukushima Daiichi plant. "They should have to pay."

Since moving to Yonezawa in April 2011, Takeda, a 77-year-old retired high school English teacher, has emerged as the de facto leader of the city's evacuee community. He organizes social gatherings and frequently meets with local government officials. He and his wife even set up a learning center in their small, three-room apartment for evacuee children. The center closed after two years, and now Takeda spends most of his time on the lawsuit. He does everything from fundraising to meeting with lawyers. "The government hates me," he says. "If not for me then the evacuees would have already gone back."

While the lawsuit in Yonezawa continues, some victims have already found redress. In October, a district court in Fukushima ruled that the Japanese government and Tepco must pay damages totaling \$4.4 million to about 2,900 people. It was the third case in which a court found the company negligent in not preventing the meltdown.

'It breeds distrust'

Yonezawa, which lies 60 miles northwest of the Fukushima Daiichi plant, was once home to as many as 3,900 evacuees from Fukushima. There are fewer than 500 now left, according to government figures. Some have returned home, either out of financial necessity or because they believe it's safe, but many have refused. In a survey conducted last April by the Fukushima government, 80 percent of voluntary evacuees living in other parts of Japan said they had no intention of going back.

The government has worked hard to assuage any lingering fears. But Shaun Burnie, a senior nuclear specialist at Greenpeace, says officials have played down the potential health risks because of the pressure they feel to put a positive spin on the situation. With the 2020 Tokyo Olympics approaching, Prime Minister Shinzo Abe wants to deliver on his promise that the Fukushima cleanup effort is "under control." "Having zones where people can't live is politically unacceptable for the government," Mr. Burnie says. "It creates the impression that a nuclear disaster can destroy whole communities for a long time."

As the government rushes to revitalize Fukushima, it may run the risk of deepening public distrust, diminishing the respect for authority that is deeply rooted in Japanese society. A 2017 Pew survey found that 57 percent of Japanese have at least some trust in the national government to act in the country's best interests, though just 6 percent have a lot of trust in national leaders.

Timothy Jorgenson, an associate professor of radiation medicine at Georgetown University, wrote in a 2016 online commentary that one of the government's mistakes was its decision to increase the maximum limit of radiation exposure from 1 microsievert to 20 microsieverts per year. (Microsieverts measure the effects of low-level radiation.)

"To the Japanese people, this raising of the annual safety limit from one to 20 mSv appears like the government is backpedaling on its commitment to safety," Dr. Jorgenson wrote. "This is the problem with moving regulatory dose limits after the fact to accommodate inconvenient circumstances; it breeds distrust."

Jorgenson wrote that the government would be better off to just explain what the health risks are at various radiation doses and leave it at that. Armed with such information, evacuees could decide for themselves if they want to return home.

For now, the government appears poised to further cut housing subsidies to evacuees. Its current plan would remove 5,000 households from the roll by March 2019. Advocacy groups are pressuring it to reconsider. In a written statement submitted to the United Nations Human Rights Council on Feb. 2, Greenpeace and Human Rights Now, a Tokyo-based nongovernmental organization, called on the government to "provide necessary housing support to all Fukushima evacuees, including those who evacuated from outside the government designated areas, as long as needed to ensure their ability to freely choose where they will live without pressure to return areas where their health or life would be at risk."

If the Japanese government were to take such advice, the lawsuit in Yonezawa could end. Takeda says it's a tempting thought, but rather than waiting for the government to change its plan, he's busy preparing for his next court appearance on March 20.

Top of Form

Bottom of Form

"I don't have much time left," Takeda says. "I can't go home."

Takehiko Kambayashi contributed to this report.

Newly reopened schools will remain empty

February 28, 2018

Only 4% of kids in 4 disaster-hit Fukushima Pref. areas will attend reopened local schools

<https://mainichi.jp/english/articles/20180228/p2a/00m/0na/014000c>

FUKUSHIMA -- Only about 4 percent of schoolchildren in four Fukushima Prefecture municipalities affected by the 2011 nuclear disaster will attend local schools that are set to be reopened this coming April, the Mainichi Shimbun has learned.

- **【Related】** TEPCO ordered to pay damages over centenarian's suicide after nuclear disaster
- **【Related】** Japan to start nuclear cleanup of Fukushima town around May
- **【Related】** Voluntary evacuees win compensation over Fukushima nuclear disaster

This is largely because many schoolchildren's families that evacuated to other regions have not returned to their hometowns as they have settled down in areas where they took shelter due to prolonged evacuation.

Following the outbreak of the Fukushima nuclear crisis in March 2011, the national government issued evacuation orders in 11 municipalities in the prefecture. In nine of these municipalities, excluding the towns of Okuma and Futaba hosting the nuclear plant, the government had partially lifted evacuation orders by spring last year, stating that radiation levels had sufficiently declined and appropriate infrastructure had been built.

These municipalities began efforts to redevelop their communities by attracting new industries such as the decommissioning of the crippled nuclear reactors and renewable energy. However, only a small number of households, particularly those families with young children, have returned home. The occupancy rate of homes in areas where evacuation orders have been lifted is less than 20 percent and about half of those who are currently living in these municipalities are elderly people.

The four municipalities -- the towns of Namie and Tomioka and the villages of Iitate and Katsurao -- are set to reopen classes at local public schools in April this year, each setting up a school combining elementary and junior high courses. Following the nuclear accident, these four towns and villages set up temporary elementary and junior high schools in areas to which the entire communities had evacuated to continue classes.

The Namie and Tomioka municipal governments will operate schools both in their towns and in areas to which their residents have evacuated because many of them are taking shelter in areas relatively far from their hometowns. The Iitate and Katsurao municipal governments will reopen schools in their villages as many of their residents have sought shelter in areas from which it takes about an hour to travel to their home villages by car.

There were 482 school-age children who were registered as residents of Iitate at the time of the nuclear accident. Only 75 children wish to attend a local school, while 18 children in Katsurao, where 83 children were registered as residents at the time of the disaster's outbreak, wish to do so.

In Tomioka, 1,204 schoolchildren were registered as residents when the nuclear disaster broke out but only 16 want to go to local schools. In Namie, only 10 children wish to attend local schools out of some 1,440 were registered as residents in March 2011. The numbers of children who intend to attend local schools include those from families who moved into these municipalities after evacuation orders were lifted.

The enrollment ratios in Iitate and Katsurao, where many children intend to commute to local schools while taking shelter elsewhere, were higher than those in Namie and Tomioka.

These four municipalities, which regard local public schools as the core of efforts to revitalize their communities, are mainly utilizing state funds for disaster recovery to encourage as many local schoolchildren as possible to attend schools in their hometowns.

Specifically, **the municipalities will make school lunches and school excursions free, operate school buses, open free after-school lessons and carry out thorough decontamination of school playgrounds and school roads, among other measures.**

Anime: An "affable note" to boast Fukushima's safety

February 28, 2018

Fukushima makes anime to counter harmful rumors

https://www3.nhk.or.jp/nhkworld/en/news/20180228_28/

Japan's Fukushima Prefecture has produced animated films stressing the safety of its agricultural and fishery products to dispel overseas rumors about radioactive contamination from the 2011 nuclear accident.

The prefecture has been trying to expand the international markets for its farm produce and seafood. The main challenge is to refute the negative rumors that have persisted since the nuclear accident.

The 5 "anime" films, each lasting about 4 minutes, are aimed at promoting the safety and quality of local peaches, rice, beef and other items.

In the films, high school girls play the roles of the food items and work hard together to improve their taste.

The prefectural government also plans to make **available English, Chinese, Spanish and French versions**, which will be shown for the first time at an event in Hong Kong in March.

These versions will also be posted on the Internet.

A prefectural official says the films represent the aspirations of food producers in Fukushima and will convey the safety of their products on **an affable note**, mainly to younger generations abroad.

Talking of tsunami barriers...again

February 28, 2018

Court told ex-Tepco Execs were informed barriers could prevent tsunami flooding at Fukushima plant

<https://www.japantimes.co.jp/news/2018/02/28/national/court-told-ex-tepco-execs-informed-barriers-prevent-tsunami-flooding-fukushima-plant/#.Wpa-wHwiGos>

JJI

An employee with a subsidiary of Tokyo Electric Power Company Holdings Inc. testified in court Wednesday that the unit reported a need to install tide barriers to prevent flooding from a tsunami well before the March 2011 nuclear accident at Tepco's Fukushima No. 1 nuclear plant.

According to the worker, the Tepco unit produced an estimate in March 2008 on the basis of long-term assessments released by a government organization, saying that a tsunami could occur with a height of 15.7 meters, which is above ground level at the nuclear plant site.

The estimate was presented at a meeting in June the same year that was attended by Sakae Muto, a former Tepco vice president.

The worker testified during a hearing at the Tokyo District Court that the Tepco unit estimated the tsunami height to reflect the latest information on a possible massive earthquake off Fukushima Prefecture, home to the now-devastated nuclear plant.

After finding that the nuclear plant site was vulnerable to flooding, the subsidiary reported at the meeting that installing 10-meter tide barriers would provide protection from a tsunami, the worker said.

The worker gave the testimony as a witness in the trial of three former Tepco executives, including Muto, 67, who were indicted in February 2016 for allegedly neglecting to take measures against massive tsunami. A prosecution inquest panel comprising ordinary citizens has overruled decisions by public prosecutors twice not to charge the executives. In the indictment, they were charged with professional negligence resulting in death and injury over the accident.

Lawyers appointed by the district court to act as prosecutors have said that former Tepco Chairman Tsunehisa Katsumata, 77, and former Vice President Ichiro Takekuro, 67, were also informed of the tsunami estimates on separate occasions. The lawyers claimed that the three former Tepco executives could have foreseen that a massive tsunami might hit the nuclear power plant.

The former executives denied the claim during the first hearing in their trial in June 2017, saying that the company would have been unable to prevent the accident even if measures were taken based on the estimate.

February 28, 2018

TEPCO asked for 'smaller tsunami' in simulation

https://www3.nhk.or.jp/nhkworld/en/news/20180228_33/

An employee at a group company of the operator of the damaged Fukushima nuclear power plant says he was asked to decrease his estimate of a projected tsunami. This was 3 years before the 2011 disaster that caused the severe nuclear accident.

He testified as a witness on Wednesday before the Tokyo District Court in the trial of 3 former executives of Tokyo Electric Power Company, or TEPCO. The defendants are accused of professional negligence resulting in deaths in connection with the nuclear accident.

In 2008, the witness was in charge of estimating the height of a tsunami assumed to hit the plant.

In his testimony, he said he estimated that tsunami as high as 15.7 meters could hit the plant in a report submitted to TEPCO.

However, he said, a TEPCO official in charge asked him to lessen the height of tsunami by altering calculation conditions and the movement of tsunami.

The witness testified that he answered that he could not alter the calculation conditions as they are used by experts at conferences.

He made the statement while answering a question by a designated lawyer who is serving as a prosecutor.

The presiding judge asked him to be more specific about his conversation with TEPCO, but he replied that he had no memory of it.

Greenpeace study shows significant radiation risks to last for decades to come

March 1.2018

<http://www.greenpeace.org/japan/ja/news/press/2018/pr201803011/>

Greenpeace investigation shows Fukushima radiation risks to last into next century

Tokyo, 1 March 2018 - A comprehensive survey by Greenpeace Japan in the towns of Iitate and Namie in Fukushima prefecture, including the exclusion zone, **revealed radiation levels up to 100 times higher than the international limit for public exposure.[1][2] The high radiation levels in these areas pose a significant risk to returning evacuees until at least the 2050's and well into next century.**

The findings come just two weeks ahead of a critical decision at the United Nations Human Rights Council (UNHRC) review on Japan's human rights record and commitments to evacuees from the nuclear disaster. "In all of the areas we surveyed, including where people are permitted to live, the radiation levels are such that if it was in a nuclear facility it would require strict controls. Yet this is public land. Citizens, including children and pregnant women returning to their contaminated homes, are at risk of receiving radiation doses equivalent to one chest X-ray every week. This is unacceptable and a clear violation of their human rights," said Jan Vande Putte, radiation specialist with Greenpeace Belgium and leader of the survey project.

Greenpeace Japan conducted the investigations in September and October last year, measuring tens of thousands of data points around homes, forests, roads and farmland in the open areas of Namie and Iitate, as well as inside the closed Namie exclusion zone. The government plans to open up small areas of the exclusion zone, including Obori and Tsushima, for human habitation in 2023. The survey shows the decontamination program to be ineffective, combined with a region that is 70-80% mountainous forest which cannot be decontaminated.

Key finding from the Greenpeace Japan survey:

- Even after decontamination, in four of six houses in Iitate, the average radiation levels were three times higher than the government long term target. Some areas showed an increase from the previous year, which could have come from recontamination.
- At a house in Tsushima in the Namie exclusion zone, despite it being used as a test bed for decontamination in 2011-12, a dose of 7 mSv per year is estimated, while the international limit for public exposure in a non-accidental situation is 1 mSv/y. This reveals the ineffectiveness of decontamination work.

- At a school in Namie town, where the evacuation order was lifted, decontamination had failed to significantly reduce radiation risks, with levels in a nearby forest with an average dose rate of more than 10 mSv per year. Children are particularly at risk from radiation exposure.
- In one zone in Obori, the maximum radiation measured at 1m would give the equivalent of 101 mSv per year or one hundred times the recommended maximum annual limit, assuming a person would stay there for a full year. These high levels are a clear threat, in the first instance, to thousands of decontamination workers who will spend many hours in that area.

This contamination presents a long term risk, and means that the government's long-term radiation target (1mSv/year which is equivalent to 0.23µSv/hour) are unlikely to be reached before at least the middle of the century in many areas that are currently open and into next century for the exclusion zone of Namie. In an admission of failure, the government has recently initiated a review of its radiation target levels with the aim of raising it even higher.

The Government's policy to effectively force people to return by ending housing and other financial support is not working, with population return rates of 2.5% and 7% in Namie and Iitate respectively as of December 2017.

In November last year, the UNHRC's Universal Periodic Review (UPR) on Japan issued four recommendations on Fukushima issues. Member governments (Austria, Portugal, Mexico and Germany) called for Japan to respect the human rights of Fukushima evacuees and adopt strong measures to reduce the radiation risks to citizens, in particular women and children and to fully support self evacuees. Germany called on Japan to return to maximum permissible radiation of 1 mSv per year, while the current government policy in Japan is to permit up to 20 mSv per year. If this recommendation was applied, the Japanese government's lifting of evacuation orders would have been halted.

"Our radiation survey results provides evidence that there is a significant risk to health and safety for any returning evacuee. The Japanese government must stop forcing people to go back home and protect their rights," said Kazue Suzuki, Energy Campaigner at Greenpeace Japan. "It is essential that the government fully accept and immediately apply the recommendations at the United Nations."

Notes:

[1] Reflections in Fukushima: The Fukushima Daiichi Accident Seven Years On

[2] The International Commission on Radiological Protection (ICRP) sets a maximum dose of 1 mSv/ year in normal situations for the public, and in the range of 1-20 mSv/y under post-nuclear accident situations, such as that resulting from Fukushima Daiichi. The ICRP recommends that governments select the lower part of the 1-20 mSv/year range for protection of people living in contaminated areas, and "to reduce all individual exposures associated with the event to as low as reasonably achievable."

How useful is the icewall?

March 2, 2018

TEPCO defends Fukushima 'ice wall,' but it is still too porous

<http://www.asahi.com/ajw/articles/AJ201803020042.html>

THE ASAHI SHIMBUN



Rows of tanks holding contaminated groundwater are seen at the Fukushima No. 1 nuclear power plant in February. (Naoko Kawamura)

The “frozen soil wall” erected around the crippled reactor buildings at the Fukushima No. 1 nuclear power plant at huge taxpayer expense appears limited in keeping groundwater from flowing in.

Tokyo Electric Power Co., which operates the plant, said March 1 that 95 tons of radioactive water has been reduced a day on average between December and early February because of the underground barrier.

“Contaminated groundwater was cut in half due to the wall,” a TEPCO official said.

TEPCO estimated that the volume of polluted groundwater would have amounted to about 189 tons if the ice wall had not been in place during that period.

The utility also said the amount of polluted groundwater was reduced by about 400 tons a day now due to combined measures, such as the wall and wells pumping up water, compared with before such measures were taken.

But Toyoshi Fuketa, chairman of the Nuclear Regulation Authority, has insisted that the wells, not the wall, are the “key” to controlling the groundwater, voicing skepticism about the role of the ice wall.

The utility is proceeding with work to reinforce the wells.

The 34.5 billion yen (\$322 million) frozen soil wall project began in 2014 to lay out the 1,500-meter-long underground wall around the No. 1-4 reactor buildings.

A large number of pipes were inserted to a depth of 30 meters to circulate liquid with a temperature of minus 30 degrees through them to freeze the surrounding soil.

It was designed to prevent groundwater from flowing into the plant and mixing with highly radioactive water in the basements of the buildings.

TEPCO’s recent assessment of the effectiveness of the frozen soil wall came after temperatures around the structure dropped to below zero following work that began last August to freeze the remaining final section of the wall.

But **experts pointed out that the utility's assessment is based on figures only when there was little rain.**

The water volume rose to 1,000 tons or so a day in late October when two typhoons struck the area. TEPCO believes that the surge at that time is largely attributable to the downpours from the typhoons. Heavy rain accumulated in the basement after flowing down holes in the ceilings caused by hydrogen explosions during the 2011 triple meltdown.

It costs more than 1 billion yen a year in electricity fees to keep the wall frozen.

The company plans to remove all the groundwater from the buildings by 2020 so that it can begin work to decontaminate the facilities later.

(This article was written by Masanobu Higashiyama and Yusuke Ogawa.)

TEPCO estimates 'ice wall' reduces contaminated water by 95 metric tons per day

<https://mainichi.jp/english/articles/20180302/p2a/00m/0na/009000c>

An underground wall of frozen soil surrounding the stricken Fukushima No. 1 Nuclear Power Plant that blocks groundwater from flowing into the plant has cut back on the amount of radiation-tainted water that is generated by an estimated 95 metric tons a day, plant operator Tokyo Electric Power Co. (TEPCO) announced March 1.

- **【Related】** High-priced Fukushima ice wall nears completion, but effectiveness doubtful
- **【Related】** Ice wall at Fukushima nuclear plant revealed for first time
- **【Related】** NRA casts doubt on TEPCO ice wall project at Fukushima nuke plant

This marks the first time a provisional calculation has been made on the efficacy of the "ice wall" on its own.

The 1.5-kilometer wall comprises approximately 1,500 pipes that have been buried 30 meters underground surrounding the nuclear plant's No. 1 to 4 reactors, through which a liquid with a temperature of minus 30 degrees Celsius is circulated to create a wall of frozen soil.

TEPCO used computers to estimate the flow of groundwater, concluding that having the ice wall reduces the amount of contaminated water that is generated by **95 metric tons, or half of what would be produced if the wall did not exist.**

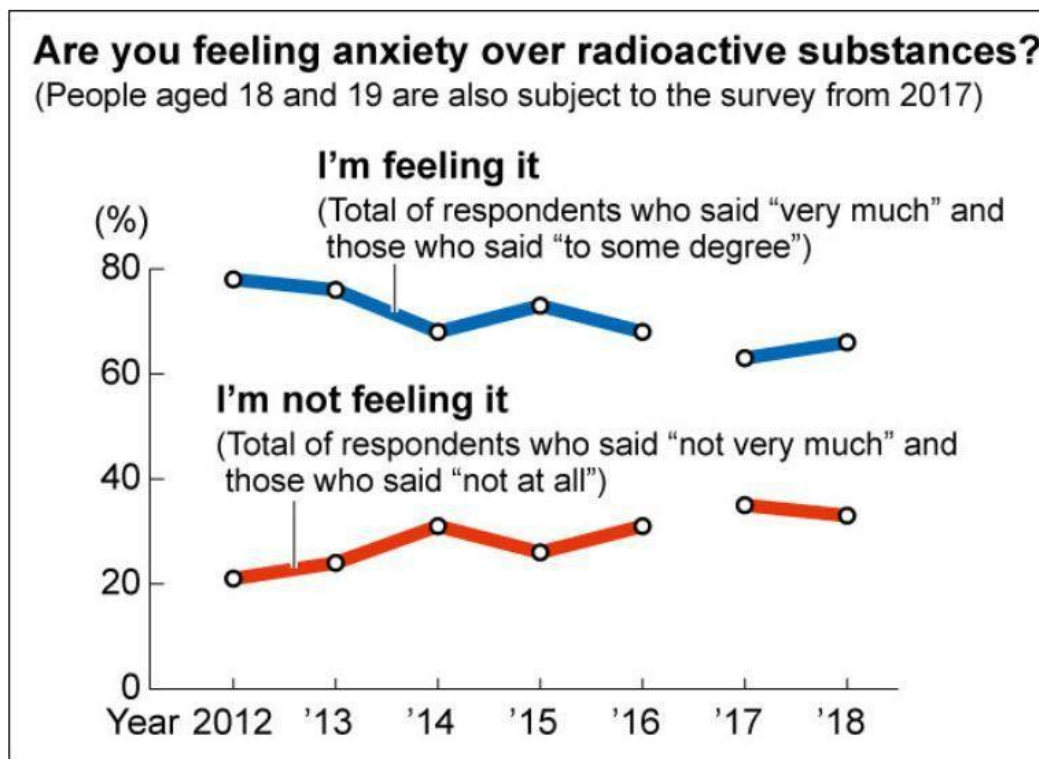
At the same time, according to the utility, by the winter of 2017, when the construction of the ice wall was almost fully completed, the amount of contaminated water that was generated had dropped by approximately 380 metric tons per day compared to the winter of 2015, when the freezing process of the wall had not yet begun.

The effects of the ice wall at the Fukushima plant are believed to be limited compared to the process of pumping groundwater upstream and releasing it into the Pacific Ocean, and introducing a subdrain system in which water is drawn from wells around the reactor buildings. Not only did it cost 34.5 billion yen from public coffers to build the structure, maintaining the ice wall will cost 1 billion-plus yen per year. The Nuclear Regulation Authority had been doubtful about the cost efficiency of the project from the outset.

"It has become clear that the ice wall, on its own, has the effect of reducing contaminated water," a TEPCO representative said. A government panel of experts will deliberate the validity of the power company's estimate.

When the construction of an ice wall was given the green light in May 2013, the Japanese government was fighting to win the bid for the 2020 Summer Olympics, and presented the wall as a trump card in controlling the ever-increasing volumes of radiation-tainted water. It was a way for the Japanese government to show the rest of the world that it was leading efforts to suppress further generation of contaminated water, and gave the government an excuse to pump public funds into the cleanup of a disaster caused by a private company.

Radiation fears still there



March 5, 2018

SEVEN YEARS AFTER: Surprise finding in Fukushima as radiation fears increase slightly

<http://www.asahi.com/ajw/articles/AJ201803050049.html>

A gradual lessening of fears about the effects of radiation from the 2011 nuclear disaster reversed itself slightly as the seventh anniversary of the accident looms.

A joint survey by The Asahi Shimbun and Fukushima Broadcasting Co. found that 66 percent of Fukushima Prefecture residents still feel anxiety over radioactive substances spewed out of the Fukushima No. 1 nuclear power plant after it went into triple meltdown.

The figure, which had been on a downward trend in recent years, was up from 63 percent in the previous survey in 2017.

The Feb. 24-25 survey canvassed the views of 1,888 eligible voters living in the prefecture, excluding some areas that remained off-limits due to high levels of radiation. Respondents were randomly chosen by computer and contacted by landline. Valid responses were given by 1,004 voters, or 53 percent.

It was the eighth such survey since the nuclear disaster triggered by the Great East Japan Earthquake that unleashed devastating tsunami on March 11, 2011.

Twenty-one percent of respondents said they are “very much” anxious about the effects of radiation, and 45 percent replied that they are feeling anxiety “to some degree.”

Against that total of 66 percent, 33 percent replied “not very much” or “not at all” with regard to anxiety. To a question about the course of recovery from the disaster, 45 percent of respondents agreed that it has been set. The breakdown was 3 percent saying “very much” and the remaining 42 percent answering “to some degree.”

On the other hand, 52 percent said the course has not been set yet. The figure included the categories of “not very much” and “not at all.”

Asked when residents will be able to live as they did before the disaster, 54 percent replied “more than 20 years later,” followed by 19 percent with “about 20 years,” 16 percent with “about 10 years” and 4 percent with “about five years.”

Even among those who replied that the course of recovery has been set, 47 percent answered “more than 20 years later.”

On the issue of whether to back the restart of idled nuclear reactors, 11 percent said they support it while 75 percent replied that they are opposed.

The percentage figure of those opposed to restarts was much higher than in a nationwide survey in February, in which 61 percent expressed that sentiment against 27 percent who were in favor.

Another question focused on plant operator Tokyo Electric Power Co.'s on-site storage of water containing difficult-to-remove tritium. As the number of storage tanks continues to pile up, TEPCO wants to discharge the water into the sea, a plan that won the support of the nation's nuclear watchdog body. Sixty-seven percent of respondents were opposed to diluting the water and discharging it into the sea, while 19 percent supported it.

Besides, 87 percent said they felt anxiety “very much” or “to some degree” about contamination of the sea caused by the discharge.

In addition, 52 percent said they felt anxiety “very much” over damages from rumors without substance about the safety of local seafood.

While 64 percent of respondents did not rate TEPCO's handling of the nuclear accident highly, 17 percent rated it highly.

Another question centered on moves by Fukushima prefectural authorities to switch from blanket testing for radiation of all bags of harvested rice to random checks.

Forty-nine percent were in favor of switching to a new system, while 44 percent were opposed.

The ratio of opposition was higher than in a nationwide survey in February in which 35 percent expressed opposition against 54 percent who supported it.

Eighty-six percent of the respondents answered that blanket testing had eased consumer concerns. The categories for this were “very much” and “to some degree.”

Radiation levels remain high

March 1, 2018

Radiation levels in Fukushima zones higher in 2017 than 2016, and still above government target despite cleanup: Greenpeace Japan

<https://www.japantimes.co.jp/news/2018/03/01/national/radiation-levels-fukushima-zones-higher-2017-2016-still-government-target-despite-cleanup-greenpeace-japan/#.WpgZY3wiGos>

Kyodo

Following the 2011 nuclear crisis, radiation levels at houses and areas nearby in a Fukushima village remain around three times higher than the government target despite cleanup work having been performed, an environmental group has said.

In some areas of the village of Iitate and the town of Namie, levels of radioactivity detected at some points among tens of thousands checked in surveys last September and October were higher than they had been the previous year, Greenpeace Japan said in a report released Thursday.

Most of the six houses surveyed in Iitate, located around 40 kilometers northwest of the crippled Fukushima No. 1 complex, logged radiation levels higher than the government-set target of 0.23 microsieverts per hour, ranging from 0.2 to 0.8 microsieverts per hour.

Some areas in the village had seen radiation levels rise from 2016, Greenpeace said. "There is a possibility (the environment) was contaminated again as radioactive materials that had accumulated in nearby forests may have moved around," it said.

One house, located near a municipal office with slightly wooded areas nearby, marked lower radiation levels compared with the previous 2016 survey but levels at another five houses — which are near forests that have yet to be cleaned up — have remained almost the same.

The points surveyed covered areas in Iitate and Namie where evacuation orders have been lifted as well as some parts of Namie that remain designated as "difficult to return" zones following the Fukushima nuclear disaster, which was triggered by the massive March 2011 earthquake and tsunami.

The survey also showed that the effects of cleanup work conducted in 2011 and 2012 in the Tsushima district of Namie, located 40 km northwest of the Fukushima plant, had been limited, with one house there logging radiation levels of 5.8 microsieverts per hour at the highest readings and 1.3 microsieverts per hour on average.

The district is among areas designated as special reconstruction zones by the government. The state plans to carry out cleanup work and promote infrastructure development intensively at its expense to make such areas livable again.

Letter from Ambassador Murata to Abe

Dear Friends, I have sent the attached message dated March 1, 2018, to Prime Minister Shinzo Abe. Its gist is as follows: "The preparations for the Tokyo Olympic Games are widely recognized as causing the sharp rise of prices of materials and serious lack of workers, thus constituting a major factor standing in the way of the reconstruction of North Eastern Japan. The monthly magazine 'FACTA' (March, 2018) has published a shocking article entitled 'Material evidence of Dentsu bribing the Tokyo Olympic Games'. It reveals the content of the secret contract between Dentsu and former international athletics federation (IAAF) President Lamine Diack. The 'Facta' and the French paper 'le Monde' had jointly obtained the document which the French Prosecutor's Office had confiscated. In view of the deepening sense of crisis of the International Community regarding the unstoppable radioactive contamination emanating from the Fukushima Daiichi, an influential member of the IPPNW renews his proposal to postpone the Tokyo Olympic

Games. ("they should at least be postponed until the situation in Fukushima is under better, perhaps even global control .—— Probably the whole world would understand and agree, and Japan would avoid the risk and embarrassment, that for ongoing unresolved nuclear problems with the Fukushima reactors, in the end national delegations might cancel their Olympic participation") From many quarters, requests have been addressed to President Bach of the IOC to reverify the "under control" assertion, but they remain without response. To cope with the increasingly preoccupying situation in Fukushima, Former Prime Ministers are being approached to write a joint letter to President Bach in order to ask him to clarify his position." (<http://kurionet.web.fc2.com/murata.html>) Mitsuhei Murata Former Ambassador to Switzerland

Only 35% of workers checked

March 6, 2018

Only 35% of Fukushima Daiichi workers tested

https://www3.nhk.or.jp/nhkworld/en/news/20180306_21/

NHK has learned that only 35 percent of workers who responded to the March 2011 nuclear accident at Fukushima Daiichi plant have been checked for long-term effects of radiation.

A Japanese government-affiliated research organization began conducting the radiation-exposure screenings 4 years ago. Some 20,000 workers who entered the plant within 9 months of the accident are to undergo life-long monitoring that includes blood tests and thyroid exams.

During the nuclear crisis, many plant workers were exposed to radiation beyond the government limit of 100 millisieverts. The government then temporarily raised the limit to 250 millisieverts so that work could continue.

The Radiation Effects Research Foundation aims to conduct regular screenings on at least 80 percent of those workers. But it says that as of January this year, it has only been able to check about 7,000 people.

Of the workers who remain untested, 35 percent have ignored calls to take a screening, 17 percent have refused to comply, and 8.5 percent cannot be reached.

Several non-participants have told NHK they cannot take days off from work, or that there are too few clinics where they can be tested.

Some were skeptical about the screenings, saying they doubt a checkup would help keep them healthy.

Tomotaka Sobue, a professor at Osaka University, was a member of a government panel that assessed the screening program.

He says the government has a responsibility to confirm whether people who took part in emergency work are facing any health risks.

He says efforts must be made to inform workers about the program, and to make it easier for them to take the tests.

"Forced" decontamination

March 7, 2018

Vietnamese trainee alleges he was misled into taking part in Fukushima decontamination work

<https://www.japantimes.co.jp/news/2018/03/07/national/vietnamese-trainee-alleges-misled-taking-part-fukushima-decontamination-work/#.WqETSnwiGos>

by Magdalena Osumi

Staff Writer

The Justice Ministry is investigating a case involving a Vietnamese man brought to Japan under the government's foreign trainee program who alleges he was duped into taking part in cleanup work in areas devastated by the 2011 nuclear disaster, authorities said Wednesday.

The ministry confirmed by telephone that the officials have been looking into the case of the 24-year-old man who worked for an Iwate Prefecture-based construction firm. The company wasn't available for comment as of Wednesday.

On Tuesday, the Nikkei daily reported the firm has denied claims that it violated labor laws. In the report, the firm asserted instead that the man, who requested anonymity through the union, was assigned the same duties as his Japanese coworkers, which didn't pose any threat to workers' health.

But according to the Tokyo-based Zentoitsu Workers Union, which represents the man, he was supposed to conduct dismantling and public engineering work, but was instead assigned with cleanup work in contaminated areas in Fukushima Prefecture, exposing him to radiation.

The group's Secretary-General Shiro Sasaki, who is well-versed on trainee issues and familiar with the case, said the 24-year-old came to Japan in September 2015 after signing a contract with the firm.

He was then sent to Koriyama in Fukushima Prefecture more than a dozen times to decontaminate the city's residential areas between October 2015 and March 2016.

Afterwards, he was engaged in dismantling buildings in an exclusion zone in the Fukushima town of Kawamata before the authorities lifted restrictions on the evacuation zone due to high levels of radiation. The man claims he was not informed he would be cleaning up areas contaminated after the Fukushima nuclear disaster.

"(The man's claims) suggest that he might have been deceived and brought to Japan to conduct cleanup work," Sasaki said.

Sasaki said the man's employer might have abused the Labor Contract Act, Labor Standard Act and Industrial Safety and Health Act.

Sasaki said the union is assisting in the ongoing negotiations between the Vietnamese man and the construction firm and are seeking compensation worth the amount he would have been paid if he had completed the rest of his three-year contract.

According to Sasaki, the man was receiving a monthly wage of about ¥140,000, while Japanese workers conducting similar cleanup work earn nearly three times as much.

The government-backed Technical Intern Trainee Program was designed to support foreign nationals in their acquisition of technical skills but in reality has been exploited to make up for the shortage of unskilled laborers in Japan.

“(Technical trainees) shouldn’t be forced to conduct such work ... which may pose a threat to one’s health; it’s undeniable that radiation may be hazardous,” Sasaki said.

The Vietnamese quit the company last November out of concern for his health after it ignored his requests to have the situation explained.

The Japan Times was able to access records showing the man had been exposed to radiation while working in Kawamata. According to the labor union, the employer hid this information from him.

Sasaki said the employer also denied the man allowances given to those working under hazardous conditions.

“Above all, decontamination work is very dangerous and requires the trainee’s consent,” said Shoichi Ibuski, a lawyer versed on labor issues, who supports foreign trainees and interns. “It’s not the type of work you engage someone in who is not aware of accompanying risks. It’s more of a humanitarian rather than a legal issue.”

Ibuski stressed the Vietnamese man’s case shows flaws in the system, which is aimed at helping foreign nationals from developing countries gain skills they could use back home.

Companies accepting foreign workers under the trainee system are required to submit a detailed plan of their training to a Justice Ministry body tasked with overseeing the program. Ibuski speculated the trainee’s employer might have kept the scope of the man’s duties hidden when submitting the documents to the government.

Asked to comment on the Vietnamese man’s case, an official said the ministry was verifying the information it had obtained, including claims the trainee’s duties differed from work described in the contract.

The official said there was a possibility the employer had violated labor laws and if the abuse is proven, the ministry would consider penalties. The law, under which violation of the trainees’ rights is subject for punishment, went into effect last November.

The official explained that labor laws do not forbid employment of foreign nationals at decontamination work sites and in theory employers accepting foreign technical trainees may have them conduct cleanup work at contaminated sites. But the official said that a vocational training program needs to be aligned with the objective of the training system.

“It’s hard to imagine that a trainee could use decontamination work experience in his or her home country,” he said, indicating that such a program would likely not be authorized by the government.

Kobe Steel also lied about disposal of radioactive waste

Kobe Steel also falsified data on analyses of burying radioactive waste

<https://mainichi.jp/english/articles/20180307/p2a/00m/0na/017000c>

Sixteen pieces of data relating to the underground disposal of highly radioactive waste generated by nuclear reactors, which scandal-hit Kobe Steel Ltd. and a subsidiary analyzed at the request of the Japan Atomic Energy Agency (JAEA), were falsified, forged or flawed in other ways, the nuclear research organization said.

- **【Related】** Kobe Steel CEO steps down over data fabrication scandal
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The government-affiliated JAEA, which commissioned Kobe Steel and its subsidiary Kobelco Research Institute Inc. to analyze data on the impact of burying highly radioactive waste deep underground, has demanded that the steelmaker redo the work.

Kobe Steel expressed regret over the matter. "We'll do our best to prevent a recurrence," said a company official.

According to the JAEA, the data in question includes that on the corrosion of metal used for cladding tubes and containers for spent nuclear fuel. Between fiscal 2012 and 2016, the Nuclear Regulation Authority and the Ministry of Economy, Trade and Industry (METI) commissioned the JAEA to conduct the analyses, and the agency farmed out the work to the steelmaker and its subsidiary.

JAEA officials said most of the data was not accompanied by records of experiments conducted in the analyses or had intentionally been altered.

According to METI's Agency for Natural Resources and Energy and other sources, the report detailing the results of the analyses will be partially corrected following the discovery of the data falsification.

Idle reactors maintenance



Although the reactors at the Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture are all offline, 6,000 or so people work at the complex each day. (Asahi Shimbun file photo)

March 8, 2018

Utilities spent 5 trillion yen on idle reactors after disaster

<http://www.asahi.com/ajw/articles/AJ201803080090.html>

THE ASAHI SHIMBUN

Electric power companies spent more than 5 trillion yen (\$47 billion) to maintain and manage idle reactors, passing on the tab to consumers as “costs for nuclear power generation.”

The expenditures by seven utilities for the five-year period between fiscal 2012 and fiscal 2016 were covered mainly by electricity charges.

Although the companies say they can gain profitability by restarting idle reactors, they have yet to initiate procedures to bring about half of the units back online.

The utilities in question are the Hokkaido, Tohoku, Tokyo, Hokuriku, Chubu and Chugoku electric power companies and Japan Atomic Power Co.

The hidden costs emerged after The Asahi Shimbun scrutinized financial statements of 10 utilities with nuclear reactors.

Of the 10, the Kansai, Kyushu and Shikoku electric power companies have resumed partial reactor operations.

It turned out that the seven utilities spent a combined 5.09 trillion yen on 34 idled nuclear reactors in the five-year period after the 2011 Fukushima nuclear disaster.

The expenditures consisted of personnel and outsourcing expenses for maintenance and management of the reactors; spent nuclear fuel reprocessing, which is not an issue with thermal or hydraulic power generation; financial outlays related to compensation for the triple meltdown at the Fukushima No. 1 nuclear power plant; and depreciation costs concerning the construction of nuclear reactors.

Restarting a single reactor with an output capacity of one gigawatt would translate into a revenue increase of 100 billion yen annually and cover their financial outlays to date, the utilities insist.

The three power companies that have resumed limited reactor operations spent 2.47 trillion yen in the five-year period as costs for nuclear power generation. They have 20 nuclear reactors, of which seven have been restarted, including ones not currently in operation.

Circumstances surrounding nuclear power industry have changed drastically since the Fukushima nuclear disaster.

At that time, there were 54 nuclear reactors operating on a commercial basis in Japan. Fourteen are due to be decommissioned.

Of the remaining 40 reactors, seven have restarted. As for the remaining 33 reactors, utilities have yet to apply to the Nuclear Regulation Authority for screening to restart 15 of them.

That is mainly due to costs the companies would incur to implement safety measures under new standards introduced after the Fukushima disaster and the fact that profitability will decline in the case of aged or small reactors.

Even among reactors that utilities applied to reactivate, the prospects for doing so remain murky due to concerns among local governments or the possibility of active faults running just below the reactor buildings.

(This article was written by Takaoki Yamamoto and Eiji Shimura.)

Fukushima 7 years later

March 5, 2018

EDITORIAL: 7 years after, Fukushima still struggling to return to normal

<http://www.asahi.com/ajw/articles/AJ201803050026.html>

Almost one year has passed since the evacuation order for four municipalities around the ruined Fukushima No. 1 nuclear power plant was lifted to make it possible for local residents to return home.

But the harsh reality of life in towns and villages devastated by the 2011 Great East Japan Earthquake and tsunami and the consequences are clearly visible to anyone who visits these areas.

These towns and villages lack many of the functions and facilities to meet the essential needs of people such as housing, shopping, health and nursing care, jobs and communities. This is the reason why many of the local residents have not returned home despite an end to forced evacuation. A survey of evacuees by one local government found nearly 50 percent of the residents have no plan to return.

But it is also true that many of the people who left their towns and villages in the wake of the catastrophic accident want to eventually return home or are of two minds.

It is the government's important role to make things easier for evacuees to return to their former communities if they want to do so while supporting their current lives.

The government needs to review the measures that have been taken so far and, if necessary, adjust them to better suit the actual circumstances.

A myriad of challenges are threatening to thwart the efforts to rebuild towns and villages ravaged by the disaster. But progress is only possible through hard, tenacious work and constant adjustments for the better.

REALITIES DETER RETURN OF EVACUEES

In Namie, a town located north of the nuclear plant, the newly built Namie Sosei elementary and junior high school, which is to open this spring, held a school enrollment briefing at the end of January.

"Each child receives more sufficient attention at a school with a small number of students, I believe," says a father of two in his 30s who left Namie with his family following the disaster and now lives in Iwaki, a city in the prefecture farther from the nuclear plant. He has decided to return to Namie so that his children can attend the new school.

The opening of the school will be "an important step forward in the efforts to rebuild Namie back into a normal town where we can hear the voices of children," says Kiichiro Hatakeyama, head of the municipal board of education.

But the number of such families is still small. Only about 10 students are expected to enter the elementary and junior high school in the first year.

Before the 2011 disaster, more than 20,000 people lived in the town. Only about 500 of them had returned by the end of January since the evacuation order was lifted.

Many evacuated residents have been discouraged from returning to the town by the slow progress in the restoration of the living environment.

There are convenience stores in the town but not a supermarket. Local residents have to drive dozens of minutes to shop at the nearest supermarket.

The municipal government is courting supermarket operators to open a store in the town, but the population is still too small to support this kind of business.

There are only clinics for surgery and internal medicine in Namie. Many of the residents who have returned are elderly people, and they are asking for dentists and eye doctors.

NEW APPROACH NEEDED TO ESCAPE FROM SITUATION

The situation is more or less similar in Tomioka and Iitate, two other municipalities where the evacuation order was called off at the same time with Namie. The government's strategy aimed at encouraging evacuated residents of these communities to return home by stepping up the decontamination efforts has failed to work as expected.

As the living circumstances remain poor, evacuated residents don't go back to their homes. As the population thus remains small, services necessary for daily life remain unavailable.

To break this never-ending cycle, the central and local governments need to come up with better ideas to improve the living environment.

As for medical and nursing care services, the Fukushima prefectural government and the administration need to work together with organizations involved to provide active support for the efforts to secure service providers instead of leaving the task entirely to the municipalities.

A system should be created to provide policy support for retailers, not just for their preparations to restart their businesses, but also for their actual operations for a certain period of time.

There are obviously limits to what individual municipal governments can do independently to regenerate their cities, towns and villages.

Cooperation among areas, such as joint efforts by multiple municipalities to restore necessary functions and facilities, is essential.

There have been troubling signs that the government's policy to support the reconstruction of disaster-hit areas tends to focus on the building of new facilities.

Costly projects to build various facilities, such as research and development institutions in the areas of energy and robotics and large sports facilities, are under way in the region.

"Some local government chiefs are forging ahead with public works projects to build facilities in a rush to take advantage of the central government budget for post-disaster reconstruction while the money is available, but they are failing to think about the ongoing costs," says a senior official at the municipal government of one affected town. "The central government is also acting in a somewhat senseless manner."

The administration stresses the importance of helping rebuild the lives of local residents. But its priorities in allocating the financial and human resources seem to be messed up.

SUPPORT FROM ENTIRE SOCIETY

In disaster-stricken areas, the vital bonds between people have been totally destroyed by the effects of prolonged periods of living as evacuees. Local communities have also been hurt by conflict and division over such issues as the status of evacuees as to whether they can return home or how much compensation they have received.

Rebuilding the broken human ties is no easy task. But there are some encouraging signs as well.

In Naraha, where about 30 percent of the residents have returned since the evacuation order was lifted two and a half years ago, a small and casual Japanese restaurant named Yui no Hajimari, which opened in September last year, is thriving. At night, it is thronged with residents in the neighborhood and nuclear workers.

Kaori Furuya, the 33-year-old woman who runs the restaurant, used to work in the Tokyo metropolitan area but decided to start the business in the town after she became involved in a project to help people acquire the skills and abilities needed for the reconstruction of affected communities.

"I want to keep operating the restaurant as a place where local residents and people from outside the town develop contacts and enjoy spending time together naturally," Furuya says.

Iitate will soon launch a program to expand ties and communication with other parts of the nation. The program, dubbed "Furusato Juminhyo" (hometown certificate of residence), will involve various attempts to convey information about Iitate to people outside who want to support the town and provide them with opportunities to mix with local residents, according to the municipal government.

"We will test various ideas designed to build a new village instead of trying to restore the village to its former state," says Iitate Mayor Norio Kanno.

Seven years since the calamitous nuclear accident, people in Fukushima are still facing a grim reality and fighting an uphill battle to find a way to regain an environment that enables them to enjoy a peaceful and quiet daily life.

What must not be forgotten is the grave fact that the accident occurred in connection with the government's long-running policy of promoting nuclear power generation.

Our society is facing a serious test of whether it can keep this in mind and commit itself as a whole to supporting the affected communities' struggles to rebuild themselves.

NRA: 2011 accident not over

March 8, 2018

Nuclear regulator: Fukushima accident not over

https://www3.nhk.or.jp/nhkworld/en/news/20180307_37/

Nearly 7 years after the triple meltdown at Fukushima Daiichi nuclear power plant, Japan's chief nuclear regulator says the 2011 accident is not over.

Toyoshi Fuketa, Nuclear Regulation Authority Chairman, held a news conference on Wednesday, 4 days before the 7th anniversary of the severe accident.

He suggested the perceived magnitude of damage from the accident can change based on many factors that will influence future judgment. He cited decontamination and radioactive waste disposal efforts, areas where evacuation orders can be lifted, and the reconstruction of affected areas.

Fuketa also said that attitudes towards regulation have changed since the accident but he suggested that people should not forget what happened 7 years ago.

He predicted there would be almost no risk of any new problems affecting areas outside the compounds of the nuclear plant in the decommissioning process.

The biggest challenge of the decommissioning is said to be the removal of fuel debris, a mixture of molten nuclear fuel and broken interior parts, from the 3 reactors.

He said the removal work has not yet reached a point where "exit is in sight."

Time to push rents up?

March 8, 2018

Rent Hike Leaves Disaster Victims with Few Options

- Kazuaki Hiramata

<https://www3.nhk.or.jp/nhkworld/nhknewsline/reinvigoratingtohoku/renthikeleavesdisaster/>

Swaths of land swallowed up by ten-meter high waves. Entire residential areas razed to the ground. The 2011 earthquake and tsunami left large parts of northeastern Japan barely standing.

The town of Namie was devastated by the disaster. Officials say almost 200 were killed by the tsunami. Homes were heavily damaged or completely washed away. People have been living in public housing ever since.

The Japanese government says that enough years have passed for it to jack up the rent at these accommodations. The news has left many shocked and thinking of how they'll survive.

Hiromi Endo is one of these people. She gets mixed feelings when she returns to her old neighborhood.

"I feel so great when I hear the sound of waves."

She likes being by the ocean but she can't see it because a levee is blocking the view. The landscape is still desolate seven years after the tsunami washed away her home.

She and her husband are still just trying to get by, living in public housing for people affected by the disaster.

Last month, they received a shocking notice in the mail. Their rent is going way up.

"My mind went blank," she says. "I had no words and couldn't even think."

Next month, their subsidized rent will almost double. Then next year, it will more than triple to about a thousand dollars.

Endo says they are still paying off debt from their kids' tuition fees. She and her husband both work but she's unsure if they'll be able to make ends meet.

"I can't borrow any more money. If I borrow more money, it will just be more that I need to pay back anyway. I'll get deeper into a more difficult situation. I'm in a real dilemma right now."

Endo is not alone. Thousands of people in disaster-hit areas are about to be affected by the law. People who are in subsidized public housing will need to start paying more if they earn above a certain income.

Critics say the government is scaling back help. Some local governments are chipping in the difference. But not all are.

Endo says when she thinks about the future, she's at a loss.

"If I can't live here, I only have one choice. I'll have to try to buy a house. But for now that is just a hope. I'm not even sure if the bank will let us take out another loan."

Endo says more than a thousand people have signed a petition for local authorities to chip in to help cover the cost of their rent hikes.

Meanwhile, construction crews are working to build up land to a higher elevation. And local authorities want to turn part of this area into an industrial zone, with the goal of building seafood processing centers. Plans for the future are taking shape, but in reality people are still struggling to restore their lives almost a decade after the disaster.

Time to rethink priorities

March 9, 2018

Editorial: 7 years after Fukushima meltdowns, time to review insistence on nuclear power

<https://mainichi.jp/english/articles/20180309/p2a/00m/0na/013000c>

Japan has no choice but to make fundamental changes to its energy policy. Weren't we all convinced of that when the crisis at the Fukushima nuclear power plant broke out seven years ago, and we were faced with the horrors and the massive impact of a nuclear disaster?

- **【Related】** Civic group proposes bill for Japan to exit nuclear power

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And yet, time has passed with little change in policy or society. Rather, **whether out of sheer inertia or habit, the past seven years have been spent on maintaining nuclear power plants.**

Steps are being taken toward resuming the operation of nuclear reactors that had been halted, and though permitting the continued use of aging reactors had once been an exception, it is becoming more the rule. Japan also keeps holding out hope for the nuclear fuel cycle, which has repeatedly proven to be a failure. The process by which policy decisions are being made has not changed, which means there is no framework through which to turn the public's desire to break free from its dependence on nuclear power into reality. Although Japan's "Basic Energy Plan" maintains that the country will "lower dependence on nuclear power," it also regards nuclear power as "an important baseload electricity source." Moreover, some engaged in the ongoing discussions to review the plan have not only suggested the rebuilding of aging nuclear plants, but the construction of new and additional facilities.

While debate over energy policy in the very country that caused the 2011 nuclear disaster has stalled, energy policy around the world has seen great changes.

Last year, the global cumulative installed capacity of solar power amounted to a total of around 400 gigawatts, while that of wind-generated power reached approximately 540 gigawatts, which was an increase of 10 times and 2.5 times, respectively, since 2010. The installed capacities of such renewable energy surpass that of not only nuclear power, but also of coal-fired thermal power.

One reason for this change is that costs relating to renewable power have dropped. According to the International Energy Agency (IEA), since 2010, solar-power generation has dropped in cost by 70 percent, while wind-power generation has dropped by 25 percent. The IEA predicts that there will be a worldwide energy shift, in which coal will cease to be the major supplier of power, as it is overtaken by renewable energy sources.

In contrast to the growth seen in renewable energy, the proportion of the world's total power generation accounted for by nuclear energy has been falling since it peaked in the 1990s, and now stands at around 10 percent.

It is true that new nuclear power reactors are being built in countries such as China and India, but it would be ill-advised to take that fact alone as evidence that the world's nuclear power industry is growing. The aging of nuclear reactors is progressing in major industrialized nations. As a result of toughened safety measures in the wake of the Fukushima disaster, the cost of building nuclear reactors has ballooned, making the construction of new or additional nuclear facilities difficult even among major consumers of nuclear power such as France and the U.S. That's even truer in Japan.

Probably the most accurate take of the world's nuclear power market is that it is on the decline. Even China, which is marginally supporting the nuclear energy market, is increasingly being seen as a major force behind the expansion of renewable energy, more so than nuclear power. Japan, which is stubbornly trying to maintain nuclear power, is already falling behind global trends.

There is, however, a slight hint that change may be afoot within the Japanese government.

First, there has been a shift in the Ministry of Foreign Affairs. At a gathering for the International Renewable Energy Agency, Foreign Minister Taro Kono voiced his regret over the lack of a shift in Japan's energy policy toward renewable energy. A report released in February by an expert panel consulted by the foreign minister explicitly stated, "The notion that nuclear and coal-fired power are necessary as

baseload electricity sources to secure a stable supply of power is a thing of the past," adding that expanding renewable energy and increasing energy efficiency were top priorities.

Objections are expected to arise from the prime minister's office and the Ministry of Economy, Trade and Industry (METI), which insist on keeping nuclear power a baseload power source. But we have come to a point where even METI cannot avoid addressing renewable energy, evidenced in a meeting of experts set up at the end of last year to discuss the introduction of massive amounts of renewable energy and power grid reform.

Under current regulations, when renewable energy producers try to link to existing power transmission lines, they are often turned away for the reason that there are "no openings." This occurs because of a rule that power transmission lines must be kept open to the fullest to prepare for accidents, and out of consideration for electricity that will be transmitted by power plants whose operations are currently stopped or are in the planning stages.

Internationally, however, there is more flexibility in the use of transmission lines, allowing for more expansion of renewable energy. Japan may be lagging far behind the rest of the world, but we welcome the consideration that is finally being given to the renewable energy market in Japan, and urge the powers that be to make reforms for the efficient use of power transmission lines that suit actual flows of electricity.

Of course, there are many obstacles to such change. For example, realizing the large-volume injection of a variable power source like renewable energy will require making scrupulous adjustments to supply and demand using weather forecast technology. To adjust for varied supply, there will be a need to secure pumped-storage hydroelectricity and thermal power. The release of information and data possessed by major utilities is also crucial.

In the case that power transmission lines need to be increased or reinforced, renewable energy producers may be required to foot the massive costs, which raises concerns that potential newcomers will be discouraged from entering the renewable energy industry. Such roadblocks need to be reconsidered. The development of batteries that can store power when amounts exceeding demand are generated is another challenge. Efforts to bring renewable energy generation costs down to international levels are indispensable.

Assessing global trends, which power sources should we invest our limited resources in? The answer is crystal clear if we look squarely at reality.

Learning from the lessons of 3/11

March 9, 2018

Learning from the lessons of 3/11, seven years on

<https://www.japantimes.co.jp/opinion/2018/03/09/editorials/learning-lessons-3-11-seven-years/#.WqTlJ3wiGos>

It's been seven years since the Great East Japan Earthquake and tsunami, which took more than 18,000 lives. While efforts continue to rebuild the lives of survivors shattered by the disasters, we must not let the memory of those tragic events fade away. Instead we must continue to learn from the lessons of 3/11 to better understand how to prepare for, defend against, and recover from future disasters in this quake-prone country.

The events that took place on March 11, 2011 — a mega 9.0 magnitude quake originating 130 km off Miyagi Prefecture that caused a giant tsunami which ravaged coastal communities along a wide stretch of

northeastern Honshu — serve as a reminder that a disaster of unprecedented scale can happen at anytime. Since then, the nation has experienced all sorts of natural disasters big and small — and will undoubtedly face more in the future.

Were we prepared enough to defend ourselves against the tsunami on that day? Are we better prepared seven years on? These are the kinds of questions we need to ask as we look back on the events of 3/11. It was a 15-meter-high tsunami — which Tokyo Electric Power Co. termed “beyond any assumption” — that flooded Tepco’s Fukushima No. 1 nuclear power plant, causing it to lose the emergency power needed to keep the reactors cool and resulting in core meltdowns in three of the six reactors. Efforts to clean up the mess and decommission the plant continue to inch forward — a process that is expected to take decades to complete. Meanwhile, evacuation advisories to municipalities in areas around the crippled plant — formerly designated as no-go zones due to the radioactive fallout from the Tepco plant disaster — have gradually been lifted following decontamination efforts. The reconstruction of community lives, however, remains slow.

How and why the Fukushima nuclear disaster took place — and whether the steps taken in the aftermath to deal with the damage have been adequate — must be constantly questioned and reviewed to prevent a recurrence.

Seven years on, reconstruction of the tsunami-ravaged areas has made progress, but efforts to rebuild the shattered lives of many survivors are only halfway through.

Public infrastructure has been steadily restored. Of the railway lines destroyed or suspended in the disasters, only a 20.8 km section between Tomioka and Namie stations of the JR Joban Line and a 55.4 km section between Miyako and Kamaishi stations on the Yamada Line remain out of service, and are scheduled to be reopened in fiscal 2018 and 2019, respectively. The construction of public housing and apartments to accommodate people who lost their homes has been 80 percent completed in Iwate Prefecture and 90 percent in Miyagi and Fukushima. The development of land for those who wish to rebuild their houses in the tsunami-ravaged areas is also more than 80 percent finished.

At the same time, some 7,000 families continue to live in prefabricated housing units — supposedly temporary shelters — in the three prefectures that suffered the heaviest damage. Most of the local municipalities anticipate that the units will be vacated by the end of fiscal 2020, but this isn’t the case for some temporary units in Fukushima that accommodate people forced to evacuate their homes in the wake of the Tepco plant meltdowns.

Roughly 73,000 people remain displaced from their homes after they evacuated from the tsunami and the nuclear disasters, living in the temporary housing units, rented apartments or relatives’ and friends’ homes across the country. As life away from home became protracted, many have chosen to resettle in the places where they evacuated. Of the 42 municipalities in Iwate, Miyagi and Fukushima, more than half — 24 — have suffered a population decline of at least 10 percent compared to before the 2011 disasters. The decline is acute in the tsunami-ravaged towns, including Onagawa (39 percent) and Minamisanriku (32 percent) in Miyagi Prefecture. In Fukushima, seven municipalities have sustained population drops of more than 70 percent, including the towns of Futaba and Okuma —the site of the Tepco plant — where all residents remain evacuated.

The evacuation advisories have been lifted in most of the former no-go zones around the Tepco plant — except for areas where habitation is deemed difficult over the long term due to high radiation levels. But the return of the former residents remains slow. Of the 49,000 people registered as residents in the areas where evacuation advisories were lifted in recent years, it’s estimated that only about 15 percent actually live there.

The areas devastated by the 3/11 disasters have come a long way. But they still have a long way to go.

US sailors and Operation Tomodachi (Part 1)



An article published by the Nation

<https://www.thenation.com/article/seven-years-on-sailors-exposed-to-fukushima-radiation-seek-their-day-in-court/>

Special investigation: US military personnel are sick and dying, and want the nuclear plant's designers and owners to take responsibility.

March 9, 2018

7 Years on, Sailors Exposed to Fukushima Radiation Seek Their Day in Court

Special investigation: US military personnel are sick and dying and want the nuclear plant's designers and owners to take responsibility.

By Gregg LevineTwitter

At over 1,000 feet in length and weighing roughly 100,000 tons, the USS *Ronald Reagan*, a supercarrier in the United States Navy's Seventh Fleet, is not typically thought of as a speedboat. But on a March day in 2011, the *Nimitz*-class ship was "hauling ass," according to Petty Officer Third Class Lindsay Cooper. Yet, when the *Reagan* got closer to its destination, just off the Sendai coast in northeastern Japan, it slowed considerably.

"You could hardly see the water," Cooper told me. "All you saw was wood, trees, and boats. The ship stopped moving because there was so much debris."

Even after more than 20 years in the service, Senior Chief Petty Officer Angel Torres said he had "never seen anything like it." Torres, then 41, was conning, or navigating, the *Reagan*, and he describes the houses, trucks, and other flotsam around the carrier then as "an obstacle course." One wrong turn, he worried, "could damage the ship and rip it open."

The *Reagan*—along with two dozen other US Navy vessels—was part of Operation Tomodachi (Japanese for "friends"), the \$90 million rescue, disaster-relief, and humanitarian mobilization to aid Japan in the

immediate aftermath of the Tohoku earthquake and tsunami. For the sailors, the destruction was horrific—they told me of plucking bodies out of the water, of barely clothed survivors sleeping outside in sub-freezing weather, and of the seemingly endless wreckage—but the response was, at first, something they'd rehearsed.

"We treated it like a normal alert," Cooper said. "We do drills for [these] scenarios. We went into that mode." She and her approximately 3,200 shipmates moved food, water, and clothing from below to the flight deck where it could be put on helicopters and flown to the stricken residents.

But that sense of routine soon changed.

"All of the sudden, this big cloud engulfs us," Torres said. "It wasn't white smoke, like you would see from a steam leak," he explained, but it also wasn't like the black smoke he saw from the burning oil fields during his deployment in Kuwait in 1991. "It was like something I'd never seen before."

Cooper was outside with her team, on the flight deck, prepping before the start of reconnaissance flights. She remembers it was cold and snowing when she felt, out of nowhere, a dense gust of warm air. "Almost immediately," she said, "I felt like my nose was bleeding."

But her nose wasn't bleeding. Nor was there blood in her mouth, though Cooper was sure she tasted it. It felt, she said, "like I was licking aluminum foil."

On March 11, 2011, at 2:46 pm local time, a 9.1 magnitude earthquake struck about 40 miles east of Japan's Oshika Peninsula. The quake, the world's fourth largest since 1900, devastated northern Honshu, Japan's main island. At the Fukushima Daiichi nuclear power plant, located near the epicenter on the Pacific coast, the temblor damaged cooling systems and cut all electrical power to the station—power that is needed to keep water circulating around the active reactor cores and through pools holding decades of used but still highly radioactive nuclear fuel.

Several of the diesel-powered emergency generators at Daiichi kicked in to restart some of the safety systems, but less than an hour after the earthquake a 43-foot-high wave triggered by the quake swept over the sea wall, flooding the facility, including most of the generators, some of which had been positioned in the basement by the plant's designer, General Electric.

Without any active cooling system, the heat in the reactor cores began to rise, boiling off the now-stagnant water and exposing the zirconium-clad uranium fuel rods to the air, which set off a series of superheated chemical reactions that split water into its elemental components. Hundreds of workers from Tokyo Electric Power Company (TEPCO), the station's owner, struggled valiantly to find a way to circulate water, or at least relieve the pressure now building in the containment vessels of multiple reactors.

But the die was cast by the half-century-old design, with results repeatedly predicted for decades. The pressure continued to build, and over the course of the next two days, despite attempts to vent the containment structures, hydrogen explosions in three reactor buildings shot columns of highly radioactive gas and debris high into the air, spreading contamination that Japan still strains to clean up today. And yet, despite this destruction and mayhem, proponents of nuclear power can be heard calling Fukushima a qualified success story. After all, despite a pair of massive natural disasters, acolytes say, no one died.

But many of the men and women of the Seventh Fleet would disagree. Now seven years removed from their relief mission, they'd tell you nine people have died as a result of the disaster at Fukushima Daiichi—and all of them are Americans.

For the sailors on the *Reagan* who have spoken about it, the reaction to encountering the cloud was bewilderment.

"At first, we were still dialed in," said Torres. "We didn't really have a chance to take in what we were experiencing. It was more like, 'Well, this was different.'" But when he came off watch, sitting in his office, his perception changed to "What the hell just happened?"

Cooper described the same response: "We didn't really know what was going on." But after about 10 minutes, the crew was told to go below deck. It was there, as she was first learning about the problems at Fukushima Daiichi from the television, that Cooper recalls hearing an announcement on the public-address system indicating that the ship might have been hit by a plume of radiation from the nearby power plant. Shortly thereafter, Cooper said, the mission got "hectic—just kind of a crazy mess."

Cooper said the crew hadn't been warned in advance of any radiation risk, and she didn't think the *Reagan's* commanding officers had any foreknowledge either. But after radioactive contamination was suspected, those aboard the carrier say, everything changed.

Everyone who, like Cooper, had been on the flight deck was ordered to the fo'c'sle, the forward part of the ship, to "implement decontamination." Cooper said she was instructed to "take anything you can off without getting naked." She was told to write her name on her discarded clothes and boots—which she saw being piled in the middle of the room—then the crew was "wanded," as Cooper described it, and given "white, plastic painters' suits."

For Torres, news of the radiation came through the rumor mill before he heard about it from his commanding officer. "It was minimal"—that was the impression Torres was given—still, the ship's meteorologist tracked the wind and talked with Torres about taking the *Reagan* north of whatever it was they'd just passed through. But Torres was soon instructed to head back toward the coast. They had a HADR, a humanitarian assistance and disaster relief mission, to complete, and since they'd already been exposed—though they'd take precautions such as turning off the ship's ventilation—they were going back to where they'd encountered the cloud.

It was likely about this time that Cooper recalled being woken up. "I was asleep in my rack when I had someone shake the living shit out of me." She said she was told with great urgency that she needed to get to the hangar bay immediately to get a gas mask.

As Cooper stood in her pajamas and flip-flops, waiting for her mask and filter canisters, she looked around: "People were shoving wet rags in the cracks of the hangar bay door so none of the air would seep through, and they had rags stacked high along the entire wall," she said. "It was crazy."

"After that," Cooper told me, "our ship went from 'OK, we got this,' to, like, 'Oh, my God... we have no idea what we're doing.'"

For Marine Lance Corporal Nathan Piekutowski—who arrived several days later with the USS *Essex*, a Wasp-class amphibious-assault ship—there seemed to be some advanced warning, and he said his preparation initially proceeded in an orderly fashion: "They had us shut all the portholes, all the windows, all the doors." Piekutowski said they attempted to seal off the berthing area and stayed inside while they headed toward Japan. He was issued iodine tablets—which are used to block radioactive iodine, a common byproduct of uranium fission, from being absorbed by the thyroid gland—and fitted for an NBC (nuclear, biological, chemical) suit. He was also told not to drink water from the ship's desalination system.

(Those I spoke with from the *Reagan* said they'd filled out consent forms for iodine tablets, but then never received the pills.)

Piekutowski wasn't particularly troubled by these precautions. He knew they had plenty of bottled water on the ship, and, by the time they were near the coast, they were allowed back on deck with no special protection. "We were never once told to put on our NBC suits." He had been issued big rubber over-boots

and a gas mask along with the suit. “Those were in sealed plastic, like freezer bags,” he told me. “Mine stayed sealed till we got back to Hawaii.”

Torres, the senior petty officer, recounted, “One of the scariest things I’ve heard in my career was when the commanding officer came over the loudspeaker, and she said, ‘We’ve detected high levels of radiation in the drinking water; I’m securing all the water.’” That included making showers off limits.

Torres described a kind of panic as everyone rushed to the ship store to buy up cases of bottled water and Gatorade—“they didn’t want to dehydrate.”

Cooper also remembers the announcement on the water contamination: “We were like, ‘Are you fucking kidding me?’” She was among those trying to buy bottled water, but said it was quickly taken off the shelves—reserved for “humanitarian assistance.” Instead, Cooper said she was told she’d be issued rations of one bottle of water per day. For the long, hard shifts spent outside, Cooper said it was not nearly enough. She said an attitude set in among her shipmates, “We were like, ‘Fuck that, we’re already exposed—I’m gonna drink the water.’”

“We didn’t know how else to handle it,” she told me. “Like, you’re exposed on the flight deck, you’re exposed in the hangar bay, you’re exposed in berthing, you’re exposed walking, you’re exposed eating—congratulations, now you’re drinking it.”

“You’re working up top for like 18 hours, you’re busting your ass off—you need to hydrate.”

Cooper described her days during Operation Tomodachi starting before dawn and ending after 8 pm, with one 30-minute break for lunch, using the bathroom, and any personal business she could squeeze in.

“They didn’t want you coming downstairs too many times because it just took too long,” she said, describing a lengthy and isolating decontamination process that was supposed to keep her and about 20 of her shipmates on the flight deck from spreading radioactive contamination to the rest of the carrier. “If you had to go to the bathroom, you were pretty much shit out of luck,” Cooper said of the time and hassle required to get to the women’s restrooms one floor below deck. “A lot of us females had to hold it in—it was miserable.”

The long hours, the short rations, and the unrelenting tableau of death and destruction drifting by the ship combined with the constant reminders that they were exposed to an unknown amount of radioactive contamination wore on the crew. They felt committed to the mission, and gratified to help, but the threat of radiation presented an aggravating obstacle. “Every time we got close to do humanitarian assistance,” said Cooper, “we’d need to dodge another plume.”

Even when operating normally, reactors like the ones designed and built by General Electric at Fukushima Daiichi produce highly radioactive isotopes of noble gases such as xenon and krypton, explained nuclear engineer Arnie Gundersen, who encountered the phenomenon when he worked at the Millstone Nuclear Power Plant in Waterford, Connecticut, in the 1970s. Millstone’s first reactor was a GE Mark 1 boiling-water reactor (BWR), the same model that failed at Fukushima. (Millstone 1 ceased operation in 1998; two other reactors of a slightly different design remain in use at the facility.)

But, as detailed by Gundersen—who is now one of the directors of Fairewinds Energy Education, a nuclear-industry watchdog—superheated “cracked fuel,” like that in the crippled Daiichi reactors, “immediately releases noble gases.”

“And that happens before the explosions” that destroyed the three reactor-containment buildings at Fukushima, he said. As Gundersen sets out the time line of the disaster, fuel began to crack within six hours of the earthquake, and TEPCO’s plant operators would have known it. “They had to know,” he told me, “because when the containment pressure started to go up, that was a clear indication that the fuel was failing.”

So, in those early hours, pressure built inside the Mark 1's containment vessel to a point where it is thought to have broken the seal on the massive metal lid, and, as plant workers desperately tried to vent some of the gas and relieve that pressure, a radioactive plume formed over the coast. And as the venting failed and the containments on three reactor units ruptured and exploded, a volume of radioactive xenon and krypton estimated to be about triple what was released in the 1986 Chernobyl disaster, wafted from Fukushima Daiichi over the next eight days. "Eighty percent of the radiation went out to sea," said Gundersen. "That's good for Japan, but it's not good for the sailors, that's for sure." Marco Kaltofen, president of Boston Chemical Data Corporation and an engineer with over 30 years of experience investigating environmental and workplace safety, noted that sensors in Richland, Washington, nearly 5,000 miles across the Pacific, saw a sixfold increase in radioactive noble gases in the days after the start of the Fukushima crisis. Chiba, the prefecture east of Tokyo, nearly 200 miles south of Fukushima, recorded radiation levels 400,000 times over background after the explosions. Closer to the release, Kaltofen figured, would be orders of magnitude worse. "A bad place to be is a couple of miles offshore," he said. When told what the sailors experienced in the earliest days of the operation, Gundersen and Kaltofen differ slightly on their interpretations. Gundersen finds symptoms like the metallic taste consistent with the radiation exposure possible from a plume of otherwise odorless xenon or krypton. Kaltofen thinks that indicates exposure to some of the radioactive particulate matter—containing isotopes of cesium, strontium, iodine, and americium—that was sent into the air with the hydrogen explosions. But both believe it speaks to a notable degree of radiation exposure.

US sailors and Operation Tomodachi (Part 2)

Cindy Folkers agreed. Folkers is the radiation-and-health specialist at the clean-energy advocacy group Beyond Nuclear, and when she hears the symptoms reported by the Tomodachi sailors, she hears the telltale signs of radiation exposure. And when told of what those relief workers experienced next, and the speed with which their symptoms manifested, she said she thinks the levels of exposure were higher than some have reported—or many would like to admit.

Just what the two large companies responsible for the design and operation of Fukushima Daiichi—TEPCO and GE—will admit is at the center of a pair of lawsuits currently moving through US courts. Or at least should be, if and when it gets in front of a jury.

"We're still trying to get to the merits," attorney John Edwards, the former US senator and Democratic vice-presidential nominee, told me, "because the merits of the case are so strong." Edwards, along with attorneys Cate Edwards (his daughter) and Charles Bonner, represent what Bonner told me were now upward of 400 sailors who accuse the Japanese utility and the US industrial giant of gross negligence in the design, construction, maintenance, and operation of the Fukushima Daiichi nuclear power plant, and of deliberately obscuring the radiologic disaster that rapidly unfolded after the March 2011 earthquake and tsunami.

And if that were all there was to it, many who have examined the Fukushima disaster—including the Japanese government's own investigation, Japan's prime minister at the start of the crisis, Naoto Kan, and even TEPCO itself—would say the plaintiffs have a point.

Before the first of the Daiichi reactors was brought online (construction began in 1967, and operation commenced in 1971), there were already open concerns about its design and placement. Originally conceived in the 1950s, the General Electric BWR Mark 1 was thought by some of its own designers to

have too small a containment structure to survive a prolonged LOOP—a loss of onsite power. The ability to adequately vent the containment was also called into question, as was the resilience of the containment vessel's metal alloy. In 1976, three GE engineers who had worked on the Mark 1 quit to protest the manufacturer's lack of urgency in addressing flaws they said would cause reactor containment to fail in a loss-of-cooling accident.

In readying the site for Fukushima Daiichi, TEPCO opted to cut down the natural 115-foot sea wall, to less than 33 feet, to reduce construction costs and make it easier to access seawater for cooling. The emergency cooling systems were also placed close to shore and did not use submersible pumps. That whole facility was placed behind what was originally only a 13-foot-high sea wall (later raised to nearly 19 feet), despite evidence that eight tsunamis of at least 40 feet had hit the area in the 70 years prior to the agency's breaking ground on Daiichi. Many emergency generators were situated in the basement, and diesel-fuel tanks were placed on a flood plane, leaving them vulnerable to the massive wave that slammed the site in 2011.

Within two years of the containment breaches, Kan, by then the former prime minister, was telling experts and investigators, including nuclear engineer Gundersen, that TEPCO had withheld critical information about what was happening at Fukushima in the first hours and days of the crisis. In 2016, TEPCO was forced to admit it failed to publicly declare a meltdown at the three crippled reactors, even though its internal guidelines indicated from early on that meltdowns were indeed occurring. And just last spring, a Japanese court found TEPCO (along with the government) guilty of negligence, not just in handling the disaster but also, in the years prior, in declaring the events at Daiichi "predictable" and preventable. But none of that has been heard by a US jury. For over four years, a number of sailors, Marines, and other military-relief personnel have waited for their day in court while their attorneys waded through motions from the defendants, GE, and TEPCO, challenging venue and jurisdiction.

In an e-mailed statement, General Electric, while expressing "heartfelt sympathy for those affected by the earthquake and tsunami," and appreciation for "the hard work and dedication of our US service members," said claims "can and should be addressed under Japan's nuclear compensation law." TEPCO also "appreciates the plaintiffs' service on Operation Tomodachi," according to its e-mail, but declined to comment outside of court on pending judicial actions. TEPCO did add, "It is most unfortunate that some of the plaintiffs are ill."

Ruby Perez was a 22-year-old petty officer first class on the *Reagan* during Operation Tomodachi. She was also pregnant. Perez told her mother, Rachel Mendez, about the snow falling during the first days of the operation. She and her shipmates were excited by a moment of diversion from the misery around them. As Mendez relayed her daughter's story to me, "They were playing in it, eating the snow, making snow cones, making snowmen."

Cooper, part of the flight deck crew, remembers the snow, too, though not so much as a light moment but rather as a symbol of decaying morale. After days of long hours and short rations, feeling isolated from the below-deck crew, knowing she'd been exposed to some radiation, she felt "knocked down."

"Nobody really cared about anything. People were making radioactive snowmen on the flight deck out of radioactive snow," she said. Dealing with the contamination and the stress "completely changed the dynamic of the ship."

An official in protective gear checks for signs of radiation on a child who was evacuated from an area near Fukushima on March 13, 2011. (Reuters / Kim Kyung-Hoon)

"Stress" was what the *Reagan*'s medical staff told Cooper when she asked about her blurred vision, poor depth perception, and loss of equilibrium during the early days of the mission.

“Gastroenteritis” was what she and many of her shipmates were told as a wave of bowel problems swept through the carrier over the next several weeks.

“I had a lot of issues with the restroom,” Cooper told me. “I don’t think I was the only one. People would shit themselves on the flight deck so often that it wasn’t even a surprise anymore. Like when you saw someone running from one side of the flight deck to go to decon[tamination], you knew something was happening.”

Torres’ experience was comparable. “I was going to the bathroom constantly,” he said. “I would eat something and I would go to the bathroom almost immediately.” It happened so often, Torres told me, that he developed severe internal hemorrhoids that eventually required multiple surgeries.

But when he visited the shipboard doctor, Torres was told he had diverticulitis, a disease not typically seen in men that young. “Watch your diet, don’t eat spicy food, and drink lots of water, eat lots of fiber,” that was the advice he said he received.

Cooper heard much the same: “Stay hydrated—drink water and eat a bland diet.” But the symptoms didn’t subside. “They didn’t attribute it to anything except ‘it’s going around,’” she said. But if that’s so, it’s been going around a long time. “I haven’t had a solid bowel movement since,” said Cooper.

Soon after Operation Tomodachi ended, when the *Reagan* ported in Bahrain, Cooper, who was 21 at the time, noticed her hair thinning. “I used to have really, really thick hair,” she said, but in Bahrain it became brittle and started falling out. Cooper said it still hasn’t recovered.

She also told me she now bruises easily and gets “burning, tingling sensations” on her arms, and a rash that extends from her hands to her elbows—an area that coincides with where she’d had her sleeves rolled up when she encountered the cloud at the start of the Japan mission. Cooper has also recently needed veneers on teeth she said have started to “shatter and break.”

For Piekutowski, the lance corporal from the *Essex*, he didn’t feel particularly sick until over a year after Operation Tomodachi. He was back stateside in the fall of 2012, and felt fatigued and had lost weight, and in November of that year, his ankles swelled up to the size of his calves. “I’m an in-shape and slim guy, and usually have pretty good definition,” he told me. His doctor thought it might be gout, though Piekutowski was skeptical. “I told him, I drink as much as the next 21-year-old, but I don’t drink *that* much.” Then, on Christmas Day, he lost the sight in his left eye. “That’s when I knew I should probably get to the hospital,” he said.

In the ER, Piekutowski said the doctors seemed to recognize right away what a blood test and bone-marrow biopsy later confirmed: He had leukemia. “They were honestly surprised I was still walking,” he said. Medical staff put him in a gown and rushed him to a bigger hospital.

Piekutowski was diagnosed with acute myelogenous leukemia (AML), an aggressive form of blood cancer most often seen in men over age 65. It is rare to see it in an otherwise healthy 21-year-old. He began treatment in Arizona, where he’d been living, but then moved to Chicago to be closer to his parents and what Piekutowski called “some pretty amazing doctors.”

From Christmas 2012 to Valentine’s Day 2014, Piekutowski figures he spent eight months in hospitals. He first went through a year of chemotherapy, but after four months in remission, his leukemia returned. He had radiation and a stem-cell transplant at the start of 2014, which has so far kept him cancer-free. But Piekutowski is still struggling to rebuild his immune system, and battling stiffness and stomach problems. “I feel like I’m 60,” he said.

Petty Officer Perez gave birth to her daughter Cecilia on March 26, 2011, and it was soon afterward that she told her mom she was feeling ill. “She just kept saying her menstrual periods would keep going and going and never stop,” said Mendez.

Despite her health, she reenlisted at the end of her tour. She was in San Diego trying to sort out some missing paperwork on her enlistment when she was hospitalized for a uterine hemorrhage. According to her mother, Perez was diagnosed with late-stage ovarian cancer in July 2016. Mendez wanted her daughter to come back to Texas, where she grew up, but Perez refused. She always believed she'd get better. "I can't go home," Mendez said Perez told her, "I just reenlisted. I still owe the Navy two years." On December 7, 2016, Ruby Perez died.

Perez is one of the eight deceased service members represented in the suits slowly making their way in US courts. Her daughter Cecilia, whose health will require a watchful eye well into adulthood, is also a plaintiff. So are 24 men and women currently living with various forms of cancer. So is a sailor whose son was born with brain and spinal tumors and lived only 26 months.

"We have a lot of clients with bone and joint issues, degenerative discs," Cate Edwards told me, "young, healthy, active individuals who have trouble walking now."

The most prevalent ailments, according to the younger Edwards, are thyroid-related. Thyroid cancers are some of the earliest to emerge after nuclear accidents because of the easy pathway for absorption of radioactive iodine. Childhood thyroid cancers skyrocketed in Belarus, Russia, and Ukraine in the first two decades after Chernobyl. According to a study published in the journal of the International Society for Environmental Epidemiology, individuals who were 18 or under at the time of the disaster in Fukushima Prefecture were 20-to-50 times more likely to be diagnosed with thyroid cancer in the period between the March 2011 and the end of 2014.

And health experts will tell you it is still too early to see many of the cancers and other illnesses that increase in incidence after exposure to ionizing radiation. Some can take 20 or 30 years to emerge. "That these sailors are getting the health effects they are already experiencing tells me that the radiation levels were extraordinarily high, and that we are likely just seeing the tip of the iceberg," said nuclear-engineer Gundersen. "I think we're going to see more of these people in the same boat as this initial wave of hundreds."

"I can't believe in a couple of years," he added, "we won't have thousands."

Which is why, Cate Edwards told me, everyone who was part of Operation Tomodachi, even those who haven't yet been diagnosed with particular ailments, are going to need additional medical monitoring for decades to come.

But General Electric and Tokyo Electric Power contend that these US citizens, from the US armed forces, who served on US ships, should seek their legal remedies in Japanese courts. "We believe these claims can and should be addressed under Japan's nuclear compensation law, which provides relief for persons impacted by these events," said GE in its e-mailed statement. (TEPCO did not respond specifically to a question about venue.)

The plaintiffs' lawyers dismiss this idea. "It's the difference between winning and losing," John Edwards told me. "If the case ends up in Japan, it just goes away."

The Edwardses and Bonner paint a picture of a Japanese legal system that is slanted in favor of industry. "You don't get a jury trial in Japan," said Bonner. "You don't get punitive damages. Plaintiffs have to pay exorbitant fees to have their cases tried before politically involved judges," and are not allowed to seek recovery of court costs, he said.

John Edwards added that Japan rarely awards damages for pain and suffering, loss of life, or the effects on a family. "They have an established compensation system," he said, "they have never paid a dime for personal injury—it's all for property damage."

Indeed, while there were rulings in Japan's courts last year against TEPCO and in favor of Japanese citizens, the awards were notably small (averaging \$5,400 per person in one case, \$1,500 in another), and

were meant as compensation for residents of towns surrounding the nuclear plant who had to relocate. In a separate case in February, a Japanese court ordered TEPCO to pay \$142,000 to the family of a 102-year-old man who killed himself after being told he'd have to leave his home inside the Fukushima radiation zone. TEPCO is still considering whether it will appeal.

One group of Tomodachi plaintiffs has been cleared to proceed in the US by the US Court of Appeals for the Ninth Circuit. A second group is still fighting in San Diego to establish jurisdiction in California courts, a hurdle all three of the plaintiffs' attorneys are confident they will eventually clear.

And when the merits of the case have their day in a US court, "the only real defense," for TEPCO and GE, said John Edwards, "is to try to argue, 'Yeah, we screwed up, we know it was bad, but is that what really caused what happened to these people?'" In other words, the defendants will concede there was a disaster at Fukushima Daiichi, but will contend the plaintiffs weren't harmed by it.

There are pretty strong indications that just such a defense is in the works. TEPCO spokesman Shinichi Nakakuki asserted in an e-mail to me that "objective scientific data demonstrates that plaintiffs were not exposed to amounts of radiation from the Fukushima Daiichi Nuclear Power Plant sufficient to cause illness." Nakakuki wrote that radiation estimates by the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) "confirm that the doses received by the plaintiffs were below the level that would give rise to adverse health effects." The spokesman also referenced a report submitted by the US Defense Department to Congress in 2014 that downplayed the link between service on the *Reagan* during Operation Tomodachi and the specific cancers that had then emerged among crew members. Time is one of the keys to understanding both of these reports. The Defense Department looked at the cancer rates only three years removed from the service members' exposure, far too short a period to predict future numbers, according to radiation-expert Folkers. The UNSCEAR paper is even older than the DoD testimony, and has been roundly criticized for attempting to make bold predictions based on a small window and data extrapolated from analysis of Hiroshima and Nagasaki (which, aside from being drawn from a radically different exposure scenario, has itself been called into question by doctors and epidemiologists). UNSCEAR also appears to have averaged exposure over the entire island, not accounting for the notably higher exposures of those closest to the Daiichi reactors, according to analysis from Folkers's *Beyond Nuclear*.

Dr. Keith Baverstock, the former chief radiation-protection expert at the World Health Organization who studied the Chernobyl disaster, said at the time that the UNSCEAR report was "not qualified to be called 'scientific,'" and questioned the panel's impartiality because its funding and membership came from the countries with the largest nuclear-power programs.

All of the radiation experts interviewed wondered whether the true scale of the radiation doses sustained by the Tomodachi sailors was ever measured. Safety specialist Kaltofen argued that most measurements don't account for what are called "hot particles"—minute bits (6 to 9 microns in diameter) of intensely radioactive matter that can be extremely dangerous in close proximity, or if ingested, but are easily missed by measuring devices mere inches away. He also pointed out that different tissues are vulnerable to different isotopes in different ways, and that some parts of the body are much more sensitive to exposure than others. "One of them is the bowel," he said, "because your intestines have villi, which are rapidly reproducing cells, and that means that they are extremely susceptible to radiation." If radiation were ingested, or if the gut were exposed to a large external dose, you could see signs of real damage. These are deterministic signs of radiation exposure, said Kaltofen, meaning you get a specific biological effect that might not itself be cancer, but would indicate the size and kind of exposures that could cause cancers later on. Folkers, discussing the sailors, put it more starkly: "The people in this case might be the dosimeters."

Gundersen's experience with radioactive noble gases led him to make another observation about dose estimates. Unless measurements were taken during those first days when ships were likely cloaked in plumes of radioactive xenon and krypton, the exposure would be missed, thus contributing to far-lower-than-accurate dose assessments. "Gases don't show up on swipe tests, or anything like that," he said. (Again, this level of methodological detail is not evident in the studies cited by TEPCO.) And Folkers stressed that the increased sensitivity to radiation seen in women and children is not part of most exposure models.

Folkers told me that there is a blood test that could more accurately estimate individuals' exposures. Karyotyping, mapping chromosomes to look for specific abnormalities closely tied to radiation damage, has been around for decades, she said, but is too rarely done. (No one interviewed for this story believes karyotyping was done on the participants in Operation Tomodachi.) Folkers said that the tests are not only capable of predicting some future illnesses; they can also be used to extrapolate backward to determine the time and intensity of suspected radiation exposure.

But that level of specificity is not the argument lawyers expect in court, nor is it the standard public-health experts would say is appropriate. "Definitive cause is not the standard for protecting public health," said Folkers, "association is the standard."

In the case of the Tomodachi sailors, there was exposure to radiation, even if there is some dispute over the size and kind of dose any particular individual received. There are a number of symptoms and illnesses, long associated with radiation, that have been reported in the service members. If people are sick, would doctors, epidemiologists, workplace-safety experts, or public-health officials wait for absolute certitude of a causal link before implementing treatments and preventive actions?

Folkers and Kaltofen each said they would not. Even Petty Officer Cooper's experience showed that the Navy—whether or not it acknowledges this now—had a basic recognition of this standard. "When you went down there," she told me about her trips to the medical station on board the *Reagan*, "you were supposed to tell them if you were on the flight deck." Depending on the answer, said Cooper, you might have seen a different doctor. "As soon as you said [where you worked], then, pretty much, they knew your issues."

Cooper had actually reenlisted after Operation Tomodachi, but when the Navy told her "'OK, you're gonna do another sea tour with the *Reagan*,'" she said her response was "Nonononononono." She told me she didn't want any possible additional exposure to radiation on a ship she saw as contaminated from stem to stern. Cooper "took the hit" and applied for an "early out" from her reenlistment.

And the Navy, according to Cooper, "fast-tracked an early out because they understood." Asking off the *Reagan* became so common, she told me, that there was a little "cheat sheet" on how to expedite the paperwork. "An early out would normally have taken me six months," she said, "but they got it done in like two weeks."

Cooper said that because her commanders were there, they understood what she'd suffered through after the radiation exposure, and knew the toll it took on the *Reagan's* crew. "That deployment took a lot out of people," she said. "A lot."

For Torres, readjusting to civilian life after 27 years in the Navy was made much more difficult because of his post-Operation Tomodachi health problems. His own gastrointestinal difficulties, surgeries for hemorrhoids and hernias, and low-energy levels when he returned stateside deeply affected his mood and his relationships. Torres also said he feels guilt over "the young 17-, 18-year-old kids standing outside," having to watch them "getting directly exposed" to the radioactive fallout as he stood inside conning the ship. "I have a lot of conflicted feelings," he told me. "Could I have done something more? All these 'what ifs.'"

There are plenty of “what ifs” to go around, but Torres is probably one of the last people who should feel guilty. Sure, Cooper now expresses regret for drinking too much of the ship’s tainted water. Piekutowski wishes he’d found a way to avoid spending five days exposed to the elements without any protection. Even Rachel Mendez, mother of Ruby Perez, wonders if she shouldn’t have been so encouraging when her daughter decided to join the Navy.

And some who served question if the Navy did all it could to protect its personnel (though not all, and not all the time). Did the *Reagan* spend too much time too close to shore? Did commanders always put the health and safety of sailors first when addressing the contamination of the ship and the water system? Did the US military measure properly for radiation, or perform the right tests for exposure? Are they doing all they can now to track the health of, and to care for, the Tomodachi veterans?

Watchdogs and health experts will tell you those are valid questions—especially if they better ensure the well-being of all the sailors going forward—but the attorneys will say that, while the military and the VA have responsibilities for the medical care of service members and veterans, “they are not, in a legal sense,” as Cate Edwards told me, “responsible for the exposure itself.”

(The Navy, for its part, said in an e-mailed statement that it has “a long distinguished history with the successful management of its occupational ionizing radiation exposure program.” It acknowledged some risk from radiation exposure at any level, but said the risks borne by the *Reagan* sailors were “small compared to other risk” accepted in work and everyday life. In making this assessment, they cite the same 2014 Defense Department report referenced by TEPCO.)

“The end of the road is not the VA,” said John Edwards. The main issue, as Edwards put it, is, “If you’re going to have nuclear plants, make sure they’re designed, built, maintained, and monitored properly.” And the question of whether TEPCO and GE did do those things properly is not just of interest to the sailors or the residents of northern Honshu—in the minds of all the attorneys and experts interviewed for this story, it is of keen relevance to tens of millions of people living in the United States.

“There’s an obvious connection between what happened in Japan and what could happen in the United States,” said John Edwards. “What they failed to do in the manufacture and maintenance of the facility in Japan also occurred, and is occurring, in the US.”

There are currently 99 operating civilian nuclear reactors in the United States, and 22 of those are General Electric Mark 1 boiling-water reactors—the make and model identical to the three that melted down and exploded at Fukushima Daiichi. Based on a 1955 design, all but four of the US reactors have now been online for more than 40 years. All of them have the same too-small primary containment vessel, the same questionable alloys, the same bolted-on lid, the same safety systems, and (with one exception) the same vent “upgrade” that failed to prevent the tragic failures at the Japanese nuclear plant. Large US cities, such as Boston, Chicago, Detroit, Philadelphia, and Washington, DC, are all closer to BWRs than Tokyo is to Fukushima Daiichi.

“It starts with the design,” Cate Edwards told me, and the complaint filed on behalf of the Tomodachi sailors goes into great detail about the flaws on the Japanese reactors that mirror the ones in the United States. “Each one of these Mark 1 BWRs is defective,” said Bonner.

For Folkers, the lesson is to look at nuclear power plants through the lens of public health. Don’t wait until after an incident to argue over which illnesses might or might not have been caused by a particular dose. Instead, Folkers urged, establish baselines for what the population’s blood work and chromosomes look like beforehand. Then, instead of only starting the fact-finding after an accidental release of radiation, or when a mysterious cancer cluster emerges—when too many vested interests invoke “what-aboutism,” as she called it, to obscure responsibility—already-informed public officials and medical professionals can focus on the response to emerging health problems.

For Kaltofen, the environmental-safety expert, the focus should be on prevention and planning before treatment and tracking. “It’s very hard to come up with a response plan after the fact,” he said. And, most importantly, for the sailors, Marines, and pilots who rushed into harm’s way to provide emergency aid and humanitarian relief to people battling a devil’s trident of disasters, the acknowledgment of their radiation exposure and the acceptance of responsibility by those who caused it could potentially be as life-changing as their service in Operation Tomodachi.

Sure, it might mean a measure of financial compensation were they to win a settlement, but for the sailors who spoke to me, that would be secondary. Foremost, a victory in court would mean a degree of respect for what they did, how they’ve suffered, and what they might need down the line—not just for those who are ailing today but also for the potentially thousands who might get sick in the future. As Angel Torres told me, “Set up an infrastructure to address those issues. Do the right thing and provide for people that were misled. Let them know, ‘You are not alone.’”

Problems of renewables in Fukushima

March 11, 2017

Fukushima powers toward 100% goal on renewables as grid and cost woes linger

<https://www.japantimes.co.jp/news/2018/03/11/national/fukushima-powers-toward-100-goal-renewables-grid-cost-woes-linger/#.WqY57XwiGos>

by Eric Johnston
Staff Writer

OSAKA – Seven years after the triple meltdown at the Fukushima No. 1 nuclear plant, Fukushima Prefecture remains committed to becoming an international center for renewable-energy research and a domestic pioneer by meeting 100 percent of its energy demand via renewables by 2040.

But grid connection issues, investment costs and a government policy that still favors investment in other energy sources — especially nuclear — continue to present challenges to researchers, businesses and Fukushima policymakers with an interest in renewable energy.

In 2014, the prefecture announced it was aiming to have renewables supply 40 percent of its energy demand by 2020, two-thirds by 2030 and 100 percent by 2040.

As of April 2017, renewable energy accounted for 28 percent of the prefecture’s energy needs and about 60 percent of its electricity consumption.

Fukushima’s installed capacity in renewables, excluding large-scale hydropower, had reached nearly 1.4 gigawatts by early 2017, equivalent to one large nuclear reactor. This included 925 MW of solar power, 209 MW of biomass and 174 MW of wind, with small shares for geothermal (65 MW) and small-scale hydro (17 MW).

The prefecture also hosts several organizations promoting renewable energy, including the Fukushima Renewable Energy Institute in Koriyama, which is part of the National Institute of Advanced Industrial Science and Technology. There, researchers look into improving the technology, efficiency and use of

several forms of renewable energy, including photovoltaic, wind, shallow geothermal and geothermal. The institute also does research on using hydrogen obtained from renewable energy sources.

“With technological support from the institute, a support program for local businesses in the quake- and tsunami-damaged areas is being carried out and human resources are being developed in collaboration with local universities. As a result, there have been 107 joint research projects implemented and nine successful examples of commercialization,” said Masaru Nakaiwa, the institute’s director-general, in an e-mail interview with The Japan Times.

“As a research institute playing a role in a new energy society for Fukushima, the Fukushima Renewable Energy Institute has been tying up with local business, and it’s gratifying to see the results,” said Masayoshi Hamada, state minister for reconstruction, after a third tour of the institute in February. Yet while official and public enthusiasm over renewable energy has grown since 2011, and while over 15 percent of Japan’s electricity was generated by renewables in fiscal 2016, Nakaiwa said that does not mean that renewable energy is spreading compared with other OECD countries.

“The big problems remain cost and grid connection capacity, although it’s remarkable that we’ve seen a recent movement in the manufacturing industry, the backbone of support for Japan, to steadily expand its use of renewable energy. The United Nations Sustainable Development Goals have drawn international attention, and the fact that visible consideration for the environment is greatly reflected in a firm’s value is thought to be the main reason” for the shift, he said.

In September 2016, the central government created a renewable energy plan for Fukushima that meant additional support for maximizing its use in Fukushima, including the development of “smart” communities.

The plan gave a particular boost to long-standing government and industry efforts at storing and using hydrogen produced from other renewable energy sources.

In January, Tadashi Mogi, a senior official at the Ministry of Economy, Trade and Industry’s Energy Efficiency and Renewable Energy Department, updated a meeting of the International Renewable Energy Agency on what was going on in Fukushima.

“The potential of solar and wind power in Fukushima is maximized. Currently, delivering the electricity produced by such renewable sources to the large power-consumption areas like Tokyo is unfeasible due to a lack of transmission capacity. But development of transmission lines will begin at a high pace from next year,” he said.

Mogi also noted that pilot projects had been initiated at so-called smart communities in five cities and towns in Fukushima. These include Shinci, Soma, Namie, Naraha and Katsurao. In those projects, electricity and heat from distributed power sources and renewable energy are supplied to public facilities or even an entire urban district.

The government sees Fukushima-generated hydrogen in particular as a key energy source and plans to promote it internationally in 2020.

“The Fukushima Plan for a New Energy Society, which is the pioneer of this basic strategy, has already begun its activities,” Prime Minister Shinzo Abe said in December at a meeting of the Ministerial Council on Renewable Energy, Hydrogen and Related Issues. “In Namie, a hydrogen production project of the world’s largest scale, using renewable energy with zero CO2 emissions, started last summer. Clean hydrogen made in Fukushima will be used for the Tokyo Olympic and Paralympic Games.”

Wind, particularly offshore wind, is another renewable energy source that Fukushima is pursuing. The Fukushima Offshore Wind Consortium is supported by METI and includes major firms like Marubeni, Mitsubishi Heavy Industries and Hitachi Ltd. The project now has three turbines: 2-MW and 5-MW turbines from Hitachi and a 7-MW turbine from MHI.

The Japan Wind Power Association has proposed that onshore and offshore wind power provide 36GW of electricity by 2030, equivalent to the output of about 30 nuclear power plants. The central government has set a target of generating 820 MW from offshore wind turbines by 2030. As of February 2017, there were nine offshore wind projects nationwide, including fixed and floating offshore turbines that were generating nearly 60 MW.

In March 2017, the association identified a number of problems with offshore wind power in Japan, including cost and poor electric grid infrastructure in areas with good wind like Hokkaido and Tohoku. The more populated central and western parts of Japan, where grid infrastructure is often better, have only moderate wind speeds, making it difficult for wind farms to turn a profit. Also cited as hurdles were legal issues over the common use of sea areas as well as concerns from politically powerful fishing unions. In Fukushima itself, a 2017 prefectural survey showed support for renewable energy remained strong, with 54 percent of respondents saying they wanted to keep using it in their daily lives and 14 percent saying they did not.

Between local efforts to meet the 2040 goal of 100 percent use, and central government and business support for Fukushima to become a testing ground for renewable energy technologies, the march toward moving Fukushima from a nuclear past to a renewable future continues.

This is part of a series looking at how the Tohoku region is attempting to rebuild itself seven years after the March 11, 2011, disasters.

Climate change: Where is the long-term vision?

March 10, 2018

Long-term climate plan needed

https://www.japantimes.co.jp/opinion/2018/03/10/editorials/long-term-climate-plan-needed/#.WqZInYhG1_8

Legislation promoting ways to adapt to climate change, recently submitted to the Diet, will require both national and local governments to work out plans to cope with and reduce damage from global warming, such as worsening floods due to extreme weather, intrusion of new diseases and decline in the quality of agriculture. Despite measures taken to fight climate change, further rises in global temperatures in coming decades appear unavoidable, the impact from which is already affecting our lives today. Adapting to climate change will require steady efforts based on a long-term strategy, so the efforts need to start today. The Paris accord was adopted in 2015 by both developed and developing countries at a United Nations conference on climate change. Based on voluntary efforts by participants to cut their greenhouse gas emissions, the agreement aims to keep the rise in average global temperature from pre-industrial levels well below 2 degrees Celsius and pursue efforts to cut the increase even closer to 1.5 degrees. There is no guarantee, however, that the goal will be achieved. The United States, the world's second-largest emitter after China, has announced its departure from the Paris agreement under the administration of President Donald Trump. The sum total of plans submitted by countries taking part in the accord is deemed insufficient to keep temperature rises below the levels feared to cause severe damage, such as more frequent natural disasters and destruction of ecosystems.

Global warming is progressing. The world's average temperature is already about 1 degree above pre-industrial levels. A special report of the United Nations Intergovernmental Panel on Climate Change warns that the average temperature may climb to 1.5 degrees above pre-industrial levels as early as the 2040s.

The Meteorological Agency says Japan's average temperature has been rising by 1.2 degrees every century. One forecast says the temperature here will increase faster than the global average, increasing by as much as 5.4 degrees by the end of the 21st century compared with 100 years earlier.

Under the proposed legislation, local governments will be urged to develop plans to adapt to climate change — either alone or in cooperation with others — by taking their own conditions into account. The environment minister will assess the impact of global warming every five years, and the national government will review its adaptation plan, devised in 2015, on the basis of the assessment. The National Institute for Environmental Studies in Tsukuba, Ibaraki Prefecture, will serve as the center for analyzing the effects of global warming. The legislation also calls on the nation to push technological cooperation with developing countries on measures to adapt to climate change.

The legislation, once enacted, will make it easier for national and local governments to secure funding for measures to cope with global warming. It is also hoped that the legislation will facilitate inclusion of measures to mitigate the impact of climate change in the government's other programs and policies. A measure to build a higher seawall to guard against rises in sea levels due to global warming, for example, can be combined with anti-tsunami steps taken in coastal areas deemed at high risk of a major earthquake. Greater chances of flooding due to climate change may require a long-term effort to move communities and their public facilities, such as municipal offices, hospitals and schools, to higher and safer ground.

Japan is already experiencing various problems associated with climate change, such as more frequent and severe flooding caused by torrential rains, increases heatstroke cases, and lower crop yields due to higher temperatures. Assuming that the rises in temperature will continue, steps may need to be taken to develop new varieties of farm products that withstand warmer weather or encourage farmers to grow other types of crops. Agricultural experimental stations in each prefecture may not be fully equipped to develop such new varieties. The government should take the initiative for broad cooperation among national institutions, universities and the experimental stations.

Global warming may bring to Japan diseases now unknown in this country. Mosquitoes that spread dengue fever will likely become widespread. Changes in ecosystems are also likely to intensify. It will be important for both national and local governments to try to foresee what could happen and take steps to prepare for and mitigate the potential damage. While pushing measures to reduce the emission of greenhouse gases and contain climate change, Japan needs to work out a long-term strategy to live with the changes wrought by global warming.

Fukushima update



March 15, 2018

Fukushima Daiichi Nuclear Power Plant 7 Years After the Disaster

Seven years of data have been collected on the Fukushima Daiichi nuclear power plant, in which 3 of its reactors suffered one of the worst meltdowns in history.

Tokyo Electric Power Company, or TEPCO, has published information on the amount of radioactive material released after the accident, based on data and simulations taken from around the Fukushima Daiichi nuclear power plant.

A total of 900 quadrillion becquerels of iodine-131 and cesium-137 were leaked into the environment between March 12 and March 31, 2011. This is around 17 percent of what was released after the Chernobyl nuclear disaster. The level fell to more than one-1000th in April. While radiation levels around the plant continue to decrease, they still remain 7 years after the disaster.

The data released by TEPCO shows that the average amount of radiation released by the number 1 through 4 reactors every March amounted to 3.4 million becquerels per hour in 2012, 2.5 million becquerels per hour in 2013, 1.3 million becquerels per hour in 2014, and 1.2 million becquerels per hour in 2015. Following a review of the assessment methods, the figures stood at 270,000 becquerels per hour in 2016, 25,000 becquerels per hour in 2017, and 130,000 becquerels per hour in January 2018. While the number has increased this year compared to 2017, TEPCO says it is within the range of variation and maintains that the total level is continuing to drop.

The radiation level measured near the main entrance of the facility, located about 1 kilometer from the reactor building, was 1 microsievert per hour this month. The figure has hardly changed from a year ago. Still, it's less than one-200th of the amount detected in the same location shortly after the accident, when levels reached a maximum of 236 microsieverts per hour.

Protective gear is no longer required in 95 percent of the plant's site.

The average number of TEPCO employees and subcontractors involved in decommissioning work stood at around 5,000 per day as of January 2018. That number has fluctuated between 5,000 and 5,500 since April 2017.

Decommissioning is Underway

The latest roadmap established by the government and TEPCO in September 2017 says it could take 40 years at most to complete the decommissioning.

Removing spent fuel rods from the storage pools of the reactor buildings, as well as removing nuclear fuel debris, are the keys to carrying out the project.

Of the plant's 6 reactors, numbers 1 to 3 suffered meltdowns. Hydrogen explosions occurred in the buildings of number 1, 3, and 4.

The removal of nuclear fuel from the pool of the number 4 reactor was completed in 2014. The reactor avoided a meltdown as it was not operating and all its nuclear fuel had been moved to the pool at the time of the accident.

Decontamination and the removal of nuclear fuel debris are under way in the number 1 to 3 reactor buildings. They were severely contaminated by the meltdowns.

The fastest progress is reported in the number 3 reactor, with a dome-shaped cover and a construction crane, both necessary to remove nuclear fuel debris, having been installed in February.

TEPCO plans to begin removing fuel rods from the pool of the number 3 reactor around this fall after workers have gotten trained in remote-control and other operations. They also plan to do the same in the number 1 and 2 reactors in fiscal 2023.

Removing the nuclear fuel debris is expected to be the most difficult part of the decommissioning process. Chunks appearing to be fuel debris have been found inside the number 2 and 3 reactors in robot probes. Pebble-like sediments appearing to be fuel debris were found on the bottom of the containment vessel of the number 2 reactor in January. A part of fuel assembly packaging was also found. Extremely high radiation of up to 8 sieverts an hour -- beyond a level permissible to human exposure -- was observed under the reactor core.

A robot was also deployed to check the number 3 reactor in July 2017. It showed dark rocky sediments on the bottom of the containment vessel that were not there before the accident. TEPCO said they are likely to be nuclear fuel debris.

No fuel debris was identified in a probe of the number 1 reactor in March 2017.

Dealing with the impact of extremely high radiation and the spread of radioactive substances will be a big challenge in fuel debris removal. One way that has been studied is filling the containment vessels with water. But the government and TEPCO say they will focus on a method known as "dry removal" -- extraction without filling the vessels with water.

The government and TEPCO plan to discuss details of fuel removal and decide by fiscal 2019 which reactor to start the process with, and begin actual removal in 2021.

The Industry Ministry says there have been delays in steps including fuel removal from the pools, but that hasn't led to any significant delays in the overall process. It says it will continue to carry out decommissioning safely and steadily without worrying too much about progress.

Tackling the issue of contaminated water

Water is being poured into the reactors 1 to 3 to help cool the molten nuclear fuel. It's becoming tainted with highly radioactive substances and is accumulating in the basement of the reactors.

With groundwater from the hillside of the plant also flowing into the buildings, tons of radioactive water has been building up.

TEPCO has been pumping up groundwater on the hillside of the plant before it reaches the reactors, and releasing it into the ocean. It calls the method a "groundwater bypass."

The utility has also introduced a "sub-drain" system, pumping up water using wells dug near the reactor buildings.

It is also keeping groundwater from reaching the site by freezing the soil around the buildings to surround them with a 1,500-meter-long wall of ice. TEPCO announced in November 2017 that the ice wall was nearly finished.

The utility announced in March that such measures have resulted in a decrease of 380 tons of contaminated water a day. It based the calculation on 3 months of data. It adds that the frozen wall alone helped to slash the amount by 95 tons a day.

A panel of government-appointed experts said the wall was effective to an extent, while more measures are needed to contain the increase of contaminated water, especially during heavy rains. The panel suggested that paving the ground around the buildings is needed to keep rainwater from entering them. While systems have been installed to remove radioactive substances from the wastewater, they have not been able to remove radioactive tritium.

About one million tons of contaminated water is still being kept in nearly 850 tanks within the facility's premises. More than 75 percent of these tanks have tritium-tainted water.

Water containing radioactive tritium can be released into the sea after the concentration of the substance is reduced to below the government limit.

A chairman of the Nuclear Regulation Authority said releasing radioactive water would not affect the environment and ecological systems, and that it is up to TEPCO to decide on how to proceed.

But local fisheries are concerned that discharging radioactive water into the sea could spark harmful rumors and affect their businesses. TEPCO remains undecided over how to deal with the contaminated water.

74% drop in radiation levels within 80km of Fukushima Daiichi plant

The Nuclear Regulation Authority, or NRA, uses helicopters to gauge per-hour radiation levels one meter from the ground in areas within 80 kilometers of the plant. It creates maps that show differences in radiation levels using 9 colors.

A map created using a similar method 7 months after the nuclear accident shows yellow and red areas stretching more than 30 kilometers northwest of the plant. The colors mean more than 3.8 microsieverts per hour of radiation were observed there. That comes out to an over 20 millisieverts annually, which is the threshold for issuing evacuation orders.

The latest survey held last September shows areas with over 3.8 microsieverts per hour had shrunk outside the 30-kilometer radius of the plant. The level was still recorded in parts of Iitate Village and Namie Town.

The NRA says the comparison of the 2 sets of data shows radiation levels fell about 74 percent on average within areas 80 kilometers of the plant.

It explains that 63 percent accounts for radioactive substances turned into non-radioactive material. It adds that the remaining 11 percent was due to other factors.

Since 2016, the NRA has been gauging radiation levels in 5 municipalities using vehicles on the request of Okuma Town, Futaba Town and other municipalities that have areas subjected to evacuation orders.

It has been releasing the results of the survey in the form of maps with greater details than those created in aerial surveys. It hopes the data will be used in discussions on whether to allow evacuees to return home.

Prospects for nuclear reactors in Japan

Japan has 40 reactors at 16 plants, excluding the reactors set to be decommissioned.

Operations of 6 nuclear reactors at 4 plants were resumed under new regulations adopted after the 2011 nuclear accident at the Fukushima Daiichi power plant. Three more reactors at 2 plants are likely to be restarted between March and May.

The Nuclear Regulation Authority holds safety screenings under the new regulations, a precondition to restart reactors. It has so far received screening applications for 26 reactors. They include reactors at the Oma plant, which is under construction in Aomori Prefecture.

Twelve pressurized water reactors at 6 plants passed the screening. Of them, operations were resumed at the number 1 and 2 reactors at the Sendai plant in Kagoshima Prefecture, the number 3 reactor at the Ikata plant in Ehime Prefecture, and the number 3 and 4 reactors at the Takahama plant in Fukui Prefecture.

The operation of Ikata's number 3 reactor has been suspended due to an injunction ordered by the Hiroshima High Court last December. Operation of Sendai's number 1 reactor has also been suspended for regular inspections. This means 3 reactors at 2 plants are currently online in the country.

The number 3 reactors at the Ohi plant in Fukui Prefecture and the Genkai plant in Saga Prefecture are expected to be put back online this month. The number 4 reactors at both plants are also likely to be restarted in May.

The NRA received screening applications for 10 boiling water reactors at 8 plants. They're the same type as the crippled Fukushima Daiichi reactors.

The number 6 and 7 reactors at the Kashiwazaki-Kariwa plant in Niigata Prefecture cleared the screening last December, becoming the first boiling water reactors to do so under the new regulations.

The screening for the sole reactor at the Tokai Number 2 plant in Ibaraki Prefecture is in the final stages. Whether the life span of the reactor will be extended will be another focus as the facility will reach its operational limit of 40 years in November.

Meanwhile, 8 reactors at 6 plants, excluding the Fukushima Daiichi, will be decommissioned largely due to huge costs of safety measures.

Kansai Electric Power Company, the operator of the Ohi plant, decided last December that it will scrap the plant's number 1 and 2 reactors. The utility cites massive costs of measures to prevent serious incidents.

The generation capacity of the reactors is relatively large at more than one million kilowatts each.

Estimates show that if the reactors were put back online, they would improve the firm's financial conditions by 9 billion yen, or about 84 million dollars, per month.

Court orders damages be paid to voluntary evacuees

March 15, 2018

TEPCO, state told to pay 3/11 evacuees who left on their own

<http://www.asahi.com/ajw/articles/AJ201803150056.html>

By RYUTARO ABE/ Staff Writer

KYOTO--The district court here ordered the government and the operator of the Fukushima No. 1 nuclear plant on March 15 to pay a combined 110 million yen (\$1 million) to 110 evacuees who fled voluntarily after the 2011 nuclear disaster.

Presiding Judge Nobuyoshi Asami at the Kyoto District Court ruled that the government and plant operator Tokyo Electric Power Co. were liable on grounds that they failed to take adequate measures to protect the plant from the tsunami that inundated the facility after the Great East Japan Earthquake.

The court noted the government's "long-term assessment" for possible earthquakes unleashing tsunami compiled in 2002. The report pointed to the possibility of a powerful earthquake and tsunami striking the plant.

All of the 174 plaintiffs from 57 families had evacuated to Kyoto Prefecture without an evacuation order except for one individual from Tomioka, Fukushima Prefecture.

Tomioka was within the 20-kilometer radius from the plant ordered to evacuate after the crisis unfolded on March 11, 2011, triggered by the magnitude-9.0 quake and tsunami.

Apart from Fukushima, the plaintiffs were from Miyagi, Ibaraki, Tochigi and Chiba prefectures.

The plaintiffs plan to appeal the court decision, as 64 were not awarded compensation.

The plaintiffs sought 846.6 million yen collectively in damages from the government and the utility.

The district court ruling marked the fifth in a series of similar lawsuits brought across the nation.

In all five cases, the respective courts acknowledged TEPCO's responsibility to pay damages to the plaintiffs.

The Kyoto District Court's decision was the third to acknowledge the government's responsibility.

The key issues in the Kyoto case were if the towering tsunami that swamped the plant was foreseen, if the government had authority to force TEPCO to take countermeasures against such an event, and if the amount of compensation paid by TEPCO to voluntary evacuees based on the government's guidelines was appropriate.

Most of the plaintiffs sought 5.5 million yen each in damages.

In the ruling, the district court determined that TEPCO should pay additional compensation on top of the amount set in the government guidelines to 109 plaintiffs who fled voluntarily despite not being subject to evacuation orders.

The criteria for extra payment are distance from the plant, radiation levels around homes, and family members who require medical attention due to the exposure to radiation.

Among the plaintiffs who were awarded additional compensation were those from Chiba Prefecture, just east of Tokyo and roughly 240 km from Fukushima Prefecture.

The court stated that the extra payment should be based on damage they suffered over two years after they began evacuating.

In the lawsuits filed at three other districts, some of the plaintiffs who evacuated voluntarily were awarded additional compensation, ranging from 10,000 yen to 730,000 yen per person

See also : <https://mainichi.jp/english/articles/20180315/p2g/00m/0dm/051000c>

Court orders compensation for Fukushima evacuees

https://www3.nhk.or.jp/nhkworld/en/news/20180315_17/

Another Japanese court has ordered the government to compensate evacuees of the 2011 accident at the Fukushima Daiichi nuclear plant.

About 170 people who moved from Fukushima Prefecture to Kyoto Prefecture, in western Japan, had sought nearly 8 million dollars from the government and the operator of the nuclear plant, Tokyo Electric Power Company, or TEPCO.

They sought compensation for their psychological suffering due to the loss of their livelihoods.

The case focused on whether the government and TEPCO should have foreseen and prevented damage from massive tsunami.

The case also focused on the amount of compensation offered by the government and its responsibility to those evacuated from undesignated areas.

Many of the plaintiffs lived in areas not designated for evacuation.

The government and TEPCO denied responsibility, claiming there was no way to scientifically predict massive tsunami at the time of the accident.

On Thursday, the presiding judge at the Kyoto District Court acknowledged the responsibility of the government and the utility.

This is the fourth ruling in cases filed by evacuees, and the third to hold the government responsible.

"A semblance of order has been restored"

March 14, 2018

EDITORIAL: TEPCO's priority is, and will be, to decommission crippled reactors

<http://www.asahi.com/ajw/articles/AJ201803140016.html>

Toyoshi Fuketa, chairman of the Nuclear Regulation Authority (NRA), told a news conference last week that the Fukushima nuclear accident is far from over, and that it would be a mistake to think of it solely as something that occurred seven years ago.

On the surface, it appears as if a semblance of order has been restored at the Fukushima No. 1 nuclear power plant, the site of one of the most catastrophic nuclear accidents in history.

Except for in and around the crippled reactor buildings, workers can now go almost anywhere on the premises without protective clothing.

Measures have been set in place to cool debris from the reactor cores and spent nuclear fuel in storage pools.

The NRA has considerably downgraded the risk of the plant spewing massive amounts of radioactive substances again.

In reality, however, the road to reactor decommissioning is long and arduous.

"We are still in no state to see the peak of the mountain," Fuketa said. "We don't even know what sort of uphill slope awaits us."

The government last year revised its timetable for reactor decommissioning. The basic target of "decommissioning in 30 to 40 years" has not changed, but the removal of spent fuel from the No. 1 and No. 2 reactor pools will not begin until fiscal 2023, three years later than initially projected.

With the state of the immediate surroundings of the reactor cores still being understood only vaguely, any decision on concrete steps for the removal of debris has been postponed by one year to fiscal 2019.

The volume of water containing radioactive substances, stored in 850 tanks, has reached 1 million tons, and it will only keep growing with the passage of time. The bloating costs of reactor decommissioning will translate into a heavier taxpayer burden. But trying to rush the job will raise the risk of exposing workers to radiation and inviting accidents.

Tokyo Electric Power Co. (TEPCO), the operator of the Fukushima No. 1 plant, started last summer to publicly announce troubles encountered by cleanup crews as "deviations from the norm."

Such issues include injuries or acute illnesses suffered by workers, vehicular collisions while multiple operations are being simultaneously run, and the deterioration of machinery used in emergencies. While most of these cases do not constitute legal violations, they are being reported almost daily.

Ensuring the safety of workers is TEPCO's top priority. The utility must also pay close attention to other factors while proceeding steadily with reactor decommissioning, such as reducing the risks of environmental pollution. It is also crucial for the company to explain the situation to local residents as well as the general public and heed their voices.

However, some within the NRA, as well as the Nuclear Reform Monitoring Committee, a group of domestic and overseas experts who advise TEPCO's board of directors, have frequently expressed concern that TEPCO may start prioritizing its corporate profitability.

For TEPCO, which has been bailed out effectively under government control, decommissioning the reactors at the Fukushima No. 1 plant should be its foremost task. As the very party that allowed the nuclear disaster to occur, it is obviously its responsibility to invest sufficient capital and manpower in this undertaking.

In 2013, when Tokyo was bidding for the 2020 Olympics, Prime Minister Shinzo Abe declared in his speech that the issue of contaminated water at the Fukushima plant was "under control."

But such optimism was hardly warranted, given the difficulty that became clear in disposing of the radioactive water.

This must be firmly borne in mind by TEPCO, as well as the Ministry of Economy, Trade and Industry, which oversees the utility, and the NRA.

--The Asahi Shimbun, March 14

Operation Tomodachi's participants file suit against TEPCO



A U.S. Marine assists Japanese Self-Defense Force members in removing debris from the grounds of Minato Elementary School in Ishinomaki, Miyagi Prefecture, in this file photo taken on April 1, 2011. (Mainichi)

March 20, 2018

Americans seek \$1 bil. in damages over Fukushima nuclear disaster

<https://mainichi.jp/english/articles/20180320/p2g/00m/0dm/023000c>

TOKYO (Kyodo) -- Some 200 U.S. residents filed a suit against Tokyo Electric Power Company Holdings Inc. and a U.S. firm seeking at least \$1 billion to cover medical expenses related to radiation exposure suffered during the 2011 Fukushima nuclear disaster, the utility said Monday.

The lawsuit was filed last Wednesday with U.S. federal courts in the Southern District of California and the District of Columbia by participants in the U.S. forces' Operation Tomodachi relief effort carried out in the wake of the March 11, 2011, earthquake and tsunami that crippled TEPCO's Fukushima Daiichi nuclear plant.

Many of the plaintiffs are suing TEPCO and the U.S. company, whose name was withheld by TEPCO, for the second time after a similar suit was rejected by the federal court in California in January.

They are seeking the establishment of a compensation fund of at least \$1 billion to cover medical and other costs, the utility said.

The plaintiffs claim that the nuclear accident occurred due to improper design and management of the plant by TEPCO. They are also seeking compensation for physical and psychological damage suffered as a result of the disaster, said the utility.

In Operation Tomodachi, which began two days after the natural disasters, the aircraft carrier Ronald Reagan and other U.S. military resources and personnel were deployed to deliver supplies and undertake relief efforts at the same time as three reactors at the Fukushima Daiichi complex suffered fuel meltdowns.

218 billion yen: Who will pay ?



Workers are flanked by bags of radioactive debris along a road in the town of Tomioka, Fukushima Prefecture, In July 2016. | AP

Estimated cost of Fukushima disaster might balloon to ¥218 billion

https://www.japantimes.co.jp/news/2018/03/24/national/estimated-taxpayer-cost-fukushima-nuclear-disaster-balloons-%c2%a5218-2-billion/#.WrattX_A-os

Jiji, Kyodo

In more bad news for taxpayers, the Board of Audit says the cost of the Fukushima nuclear disaster could balloon to ¥218.2 billion, **up 58 percent from the previous estimate of ¥126.4 billion.**

The board released the latest estimate Friday in light of the government's adoption of a Cabinet decision in December 2016 to raise the upper limit on financial assistance for Tokyo Electric to ¥13.5 trillion from ¥9 trillion.

The government is borrowing funds from financial institutions for delivery to Tokyo Electric Power Company Holdings Inc. through a public-private body to help it deal with compensation and other costs related to the triple core meltdown in March 2011.

The principal of the funds will be repaid from contributions by Tepco and other power companies to the body, called Nuclear Damage Compensation and Decommissioning Facilitation Corp., and from proceeds from the sale of Tepco shares it owns.

But **the interest payments will be shouldered by taxpayers.**

According to the latest estimate, if Tepco uses up the ¥13.5 trillion assistance limit, it will take 17 to 34 years for the government to finish repaying the funds, and interest payments will balloon to between ¥131.8 billion and ¥218.2 billion.

The board said if interest rates go up, the amount will increase. Also, depending on Tepco's business situation, the repayment period could grow and impose an even heavier burden on taxpayers.

The government plans to cover about ¥4 trillion of radiation cleanup costs with proceeds from the Tepco share sale. But the audit board said the plan requires that Tepco shares be sold for at least ¥1,500 apiece, compared with its current market price, which is below ¥500.

Furthermore, the board said additional costs may arise from decontamination work and facilities to be built for temporary storage of the tainted soil generated by the work.

Scrapping the crippled Fukushima No. 1 plant, which is expected to take three to four decades, will also be costly because of the daunting tasks of removing the melted fuel and debris, and managing the hundreds of tons of tainted water it generates each day.

The board suggested Tepco redouble its efforts to improve profitability and corporate value to raise its share price.

The nuclear disaster was caused when the 9.0 magnitude earthquake and ensuing tsunami on March 11, 2011, tipped the aging and poorly designed Fukushima No. 1 nuclear plant into a blackout that disabled its cooling systems.

Time to rethink Japan's energy policy

March 18, 2018

Time to rethink the nation's post-3/11 energy policy

https://www.japantimes.co.jp/opinion/2018/03/18/editorials/time-rethink-nations-post-3-11-energy-policy/#.Wq6jbH_A-os

The disaster at Tokyo Electric Power Co.'s Fukushima No. 1 nuclear power plant seven years ago — in which three of its six reactors suffered core meltdowns after a giant tsunami crippled its emergency power supply and cooling system — swept away the safety myth of nuclear energy in this country. Nearly

50,000 people of Fukushima Prefecture are still displaced from their homes today and the return of residents to areas around the plant remains slow even after evacuation advisories were lifted following decontamination efforts. These facts testify to the lasting damage that a severe nuclear power plant accident can have on people's lives.

A vast majority of citizens remain wary of the safety of nuclear power — just as they were right after the disaster. According to a recent media opinion survey, more than 80 percent of respondents said they remain concerned with the risk of severe accident at a nuclear power plant. More than 60 percent called for phasing out nuclear energy in the future, while another 11 percent demanded the immediate scrapping of all nuclear power plants.

The government's current energy policy, including the use of nuclear energy, doesn't appear to reflect popular sentiment and the changing reality surrounding nuclear power. The Abe administration and the power industry have pushed for the reactivation of nuclear reactors idled in the wake of the Fukushima accident once they have cleared screening by the Nuclear Regulation Authority under safety regulations that were revamped to become what the administration has touted as the world's most stringent levels. The restart of the reactors, however, has remained slow. Since the new regulations were introduced in 2013, only six reactors at four plants run by Kyushu, Kansai and Shikoku Electric Power have been reactivated following the NRA's nod and the consent of host local governments. The operation of one of them — Reactor No. 3 at Shikoku Electric's Ikata plant in Ehime Prefecture — was ordered suspended in a court injunction issued in December in response to one of dozens of lawsuits filed across Japan seeking a halt to nuclear power plant operations. The share of nuclear power in the nation's electricity supply remained a mere 2 percent as of 2016 — compared with around 30 percent before the 2011 disaster. The feasibility of the government's energy mix target of nuclear energy accounting for 20-22 percent of the power supply in 2030 is in question.

The government's pledge in its 2014 basic energy plan to reduce the nation's dependency on nuclear energy as much as possible may have been a response to widespread popular sentiment against nuclear power. But in the seven years since 3/11, nuclear power has become less competitive vis à vis other power sources in many countries around the world due to rising construction costs and more stringent safety requirements. The economic advantages of nuclear power plants in Japan have also been challenged, particularly in view of the massive cost of dealing with the aftermath of the Fukushima plant accident. The government has extended various support measures to power companies that run nuclear reactors as they face an increasingly competitive environment with the liberalization of the electricity business.

The past seven years have also witnessed a significant decline in the cost of renewable energy sources such as wind and solar power, which have rapidly gained market share in power production around the world. Japan has lagged sharply behind this global trend, however. Foreign Minister Taro Kono, speaking at a gathering of the International Renewable Energy Agency in Abu Dhabi in January, called Japan's energy policy "lamentable" in that it is aiming for a 22-24 percent share of renewables in the electricity supply by 2030 even though such energy sources account for 24 percent of global power supply on average today.

The government's energy plan calls for maximum efforts to expand the use of renewable energy to reduce dependency on nuclear power. Following the introduction in 2012 of the feed-in tariff system, the share of renewables has indeed increased to account for around 15 percent of electricity generation. At the same time, some government policies raise questions about its commitment to boosting the use of renewable energy, such as its decision to allow major power companies the right to restrict the supply of solar and wind-generated electricity to their power transmission networks.

The world's energy landscape has significantly changed since the March 2011 Fukushima nuclear disaster. Seven years on, the government should revisit the lessons of the Tepco plant accident and reconsider whether it should continue to promote nuclear power despite the increased social and economic costs, or make a clear turn toward the greater use of renewable energy.

High time to reassess the economics of nukes

April 1, 2018

Reassess the economics of nuclear power

<https://www.japantimes.co.jp/opinion/2018/04/01/editorials/reassess-economics-nuclear-power/#.WsNA-X8uCos>

The recent decision by Shikoku Electric Power Co. to decommission the aging No. 2 reactor at its Ikata nuclear facility in Ehime Prefecture serves as yet another reminder that tightened safety regulations and market conditions in the aftermath of the 2011 Fukushima crisis are imposing a heavy financial burden on power companies that run nuclear power plants.

Whether or not they push for reactivating the reactors idled in the wake of the 2011 accident, both the government and the power industry are urged to reassess the economics of nuclear power to determine whether they are still worth the cost.

The Ikata reactor is the ninth at six nuclear power plants across Japan to be decommissioned after the 2011 disaster, not including the six at Tokyo Electric Power Co.'s Fukushima No. 1 plant, which was crippled by the meltdowns at three of its six reactors in March 2011 after the plant was flooded by giant tsunami in the Great East Japan Earthquake. All of the reactors were aging and nearing the 40-year limit on their operation, and the power companies were faced with the question of whether to decommission the reactors or apply to the Nuclear Regulation Authority for approval of a one-time extension of their operation for another 20 years — which would have entailed costly additional investments to bump up their safety under the post-Fukushima rules.

Shikoku Electric, which had already decided to scrap the No. 1 reactor at Ikata, reportedly determined that reactor 2, with a relatively small output capacity of 566,000 kilowatts, wouldn't be able to recoup the safety investments — estimated at nearly ¥200 billion — needed to get the NRA's approval if its operation were to be extended by 20 years. The power company had already spent roughly ¥190 billion on extra safety features on the plant's reactor 3 to clear the NRA screening under the revamped standards adopted in 2013. That unit, with a larger output capacity, was reactivated in August 2016 after the NRA granted approval, but its operation was ordered suspended in a Hiroshima High Court decision in December. Such a litigation risk is also believed to have weighed on the company's decision regarding the fate of reactor 2. Most of the reactors that have been tagged for decommissioning have relatively small output capacity, which makes them unlikely, as in the case of the No. 2 unit at Ikata, to generate enough earnings to cover the cost of the safety investments. However, two of them — reactors 1 and 2 at Kansai Electric Power Co.'s Oi plant in Fukui Prefecture — had a capacity of over 1 million kilowatt each. The extra safety investments that Kansai Electric has made to seek restarting its other reactors was estimated to have topped ¥800

billion, and additional spending to extend the operation of Oi units 1 and 2, with their unique structures requiring major work, could have expanded the entire cost beyond ¥1 trillion.

Major power companies that run nuclear power plants long monopolized the electricity markets in their respective regions. That changed with the liberalization of the electricity retail business that was completed in 2016, exposing them to tough competition. Added to that is the decline in electricity demand due to power-saving efforts and the declining population in rural markets. The extra cost of restarting the aging reactors come as an increasingly heavy burden on the power companies.

Meanwhile, 14 reactors at seven power plants have cleared the NRA's screening since 2013, and seven reactors at five plants have resumed operations. Two more — reactor 4 at the Oi plant and reactor 4 at Kyushu Electric Power's Genkai plant in Saga Prefecture — are expected to restart in May. However, the No. 6 and No. 7 units at Tepco's Kashiwazaki-Kariwa plant in Niigata Prefecture — the world's largest in terms of output capacity — cleared the NRA screening in December, but the prospect of their restart remains unknown due to opposition from the local governor.

Kyushu Electric will also have to decide whether to seek a restart of the No. 2 reactor at the Genkai plant — which in 2021 will have reached 40 years since its operation began and has a relatively small capacity. Tepco has not made a decision on what to do with the reactors at its Fukushima No. 2 plant — despite requests from Fukushima Prefecture to decommission the facility.

The government has a target of nuclear power accounting for 20 to 22 percent of the total electricity supply in 2030 — which is expected to require some 30 reactors in operation. The feasibility of meeting that target should be reviewed given the circumstances surrounding nuclear power plants.

60 years after, the unfulfilled promise of breeder reactors

Background:

Even before two A-Bombs were dropped on Japan in 1945, starry-eyed nuclear scientists were planning for a future world in which plutonium and thorium would become the principal energy resources of human society, replacing uranium as a nuclear fuel. This dreamy-eyed vision has always been considered of paramount importance to the future of nuclear energy — and nuclear weaponry. The only naturally-occurring element that can be used as a nuclear explosive in an A-Bomb or as fuel for a nuclear reactor, is a rare type of uranium called uranium-235 (U-235). When uranium deposits are found in nature, only 7 uranium atoms out of a thousand are U-235. Virtually all of the other uranium atoms are of a different type called uranium-238 (U-238).

U-238 is a "non-fissile" variety of uranium, often called "depleted uranium" (DU). U-238 is far more abundant than U-235, but it cannot be used as a nuclear explosive or as fuel for a nuclear reactor. Similarly, Thorium-232 (Th-232) is a naturally-occurring element three times more abundant than U-238, but it is not fissile either.

However, there's a trick that nuclear scientists learned way back in the early 1940s. It's a way to make U-238 and Th-232 "breed" new elements -- human-made, artificial elements — that are fissile, and perfectly suited for use in nuclear reactors or nuclear weapons. For this reason, U-238 and Th-232 are said to be "fertile" elements, because they breed fissile materials.

When an atom of uranium-238 absorbs a neutron, it becomes an atom of plutonium-239. And when an atom of thorium-232 absorbs a neutron, it becomes an atom of uranium-233. Both of these human-made materials, plutonium-239 and uranium-233, are fissile — they are both excellent

candidates to be used as an explosive in nuclear weapons or as fuel for nuclear reactors. Neither of them occurs in nature. They are human-made.

Breeder reactors are specifically designed to breed large quantities of plutonium-239 and/or uranium-233 in order to extend the supply of fissile materials, which — unless replenished — will not long outlast the world's oil supplies. There is simply not enough uranium-235 to allow nuclear power to replace a significant amount of the world's oil consumption. At present, nuclear power produces about 11 percent of global electricity, but that's less than 2 percent of the world's energy use (most of which is non-electrical).

Up to the present time, most breeder reactors have been built to mass-produce plutonium-239, although breeding uranium-233 using thorium-232 as a "starter" has been repeatedly tried. At Chalk River, for example, in the late 1940 and early 1950s, there were two "reprocessing plants" — one to extract plutonium-239 from irradiated uranium fuel rods, and one to extract uranium-233 from irradiated thorium rods. (You can't call them "fuel rods" because thorium is not a fuel.)

One of the biggest worries associated with breeder reactors is the very real danger of the proliferation of nuclear weapons — not only spreading these doomsday devices to other countries, but also to terrorist groups and criminals. For plutonium and uranium-233 are very powerful nuclear explosive materials, and if stolen or diverted can be fabricated into formidable nuclear explosive devices that can be delivered to their targets in any number of ways -- even in the trunk of an auto.

Such is not the case with today's nuclear power reactors. Normal uranium reactor fuel cannot be used as a nuclear explosive because there is too much uranium-238 mixed with the uranium-235, and there is no practical way to easily or quickly remove the U-238. The situation would change drastically if plutonium or uranium-233 were used as reactor fuel, for such fuel could readily be converted to a powerful nuclear explosive.

Many breeder reactor programs around the world have failed. The Fermi-1 reactor just outside Detroit was an experimental breeder that suffered a partial meltdown and was scrapped; it was the subject of the book "We Almost Lost Detroit". The Superphénix in France was a breeder reactor that was a spectacular failure at the time and marked the beginning of the decline of the French nuclear power industry. The SMR-300 breeder reactor in Germany was abandoned without ever operating. Nevertheless, interest in breeder reactors continues because without it the nuclear enterprise has no long-term future. Some of the small modular reactors (SMRs) currently proposed are breeders.

In 2010 the International Panel on Fissile Materials said "After six decades and the expenditure of the equivalent of tens of billions of dollars, the promise of breeder reactors remains largely unfulfilled and efforts to commercialize them have been steadily cut back in most countries". In Germany, the United Kingdom, and the United States, breeder reactor development programs have been abandoned.

Now Japan has joined the parade, abandoning its Monju breeder reactor for good.

Gordon Edwards,

Monju Breeder Reactor Abandoned

***Japan prepares to shut down its
troubled 'dream' nuclear reactor***

***Decades-old plant has cost almost
\$10 billion and hardly ever operated***

KAZUNARI HANAWA, Nikkei staff writer April 06, 2018

<https://asia.nikkei.com/Politics/Japan-prepares-to-shut-troubled-dream-nuclear-reactor>
or <https://nuclear-news.net/2018/04/06/the-end-for-japans-expensive-monju-nuclear-fast-breeder-dream/>

TOKYO — Japan is set to start decommissioning its troubled Monju fast-breeder reactor after decades of accidents, cost overruns and scandals. It is the beginning of the end of a controversial project that exposed the shortcomings of the country's nuclear policy and the government's failure to fully explain the risks and the costs.

In July, the Japan Atomic Energy Agency will begin decommissioning what was hailed as a "dream" reactor that was expected to produce more nuclear fuel than it consumed. The government has so far spent more than 1 trillion yen (\$9.44 billion US) on the plant, which has barely ever operated.

The plan approved by the Nuclear Regulation Authority on March 28 to decommission the reactor, located in central Japan's Fukui Prefecture, calls for the extraction of spent nuclear fuel to be completed by the end of the fiscal year through March 2023. Full decommissioning is expected to take about 30 years.

Total costs to shut down the reactor are currently estimated at 375 billion yen, but that could climb, as the full technical requirements and the selection of the nuclear waste sites are not well understood.

Japan does not have the technological ability to manage the decommissioning process on its own, and must enlist the help of France, which has more experience with fast-breeder reactors. Among the technical challenges is handling the plant's sodium coolant, which is highly reactive and explodes on contact with air.

Many of the problems with Japan's nuclear policy were brought to light by the Fukushima Daiichi nuclear disaster caused by the tsunami and earthquake of March 2011. Such problems have included the high costs of plants, the selection of nuclear disposal sites, and the threat of shutdowns due to lawsuits. Japan's nuclear policy has largely been gridlocked since the disaster.

But the Monju project had many problems before the Fukushima catastrophe.

Planning for the project began in the 1960s. Its fast-breeder technology was considered a dream technology for resource-poor Japan, which had been traumatized by the oil crisis of the 1970s. The reactor was supposed to generate more plutonium fuel than it consumed.

The reactor finally started operating in 1994, but was forced to shut down the following year due to a sodium leak. It has been inoperative for most of the time since. The decision to decommission it was made in December 2016 following a series of safety scandals, including the revelation that many safety checks had been omitted.

Recent experience suggests the government's estimated cost of 375 billion yen to decommission Monju could be on the low side. In 2016, the estimate for decommissioning the Fukushima Daiichi plant ballooned to 8 trillion yen [\$74.8 billion US] from an initial 2 trillion yen in 2013, largely due to inadequate understanding of the decommissioning process.

While "the JAEA will try to keep costs down," said Hajime Ito, executive director with the agency, the process of extracting sodium, the biggest hurdle, has yet to be determined. Future technical requirements will also involve significant costs.

The Monju reactor is not the only example of failure in Japan's nuclear fuel cycle policy — the cycle of how nuclear fuel is handled and processed, including disposing nuclear waste and reprocessing used fuel. Central to this policy is a nuclear fuel reprocessing plant in the village of Rokkasho in northern Aomori Prefecture that was supposed to extract plutonium and uranium by reprocessing spent nuclear fuel to be reused at nuclear plants.

More than 2 trillion yen [\$18.7 billion US] has been spent on the plant so far. Construction was begun in 1993, but completion has been repeatedly postponed due to safety concerns. On Wednesday, the NRA

decided to resume safety checks on the plant, but if it chooses **to decommission it, the cost would be an estimated 1.5 trillion yen [\$14 billion US]** .

Had Japan taken into consideration the costs of decommissioning plants and disposing of spent nuclear fuel, it probably would not have been able to push ahead with its nuclear policy in the first place, said a former senior official of the Ministry of Economy, Trade and Industry, who was involved in formulating the country's basic energy plan.

End of Fukushima arbitration case

April 6, 2018

Arbitration ends for Fukushima damages claim

https://www3.nhk.or.jp/nhkworld/en/news/20180406_21/

A government body has given up trying to arbitrate between Tokyo Electric Power Company and more than 15,000 people seeking higher monthly compensation for the 2011 Fukushima nuclear disaster.

It was the largest arbitration case involving the nuclear accident.

Namie Town in Fukushima Prefecture filed a petition with the Nuclear Damage Compensation Dispute Resolution Center in 2013, on behalf of residents who were forced to evacuate after the disaster.

More than 15,000, or about 70 percent of the town's population, signed the petition to demand more compensation from TEPCO, the operator of the damaged Fukushima Daiichi nuclear plant.

TEPCO's monthly payment for each Namie resident was calculated at 100,000 yen, or about 934 dollars. In March 2014, the dispute resolution center offered an arbitration plan that called for raising this amount by 50 percent. The town agreed to accept it.

But TEPCO maintains that increasing the compensation would have a significant impact on other evacuees. The center has repeatedly asked the utility to accept the plan.

On Friday, the dispute resolution center told the town of its decision to end the arbitration process.

The claimants are expected to consider whether to file a lawsuit against TEPCO. The town says more than 800 of the claimants are now dead.

Remove those dosimeters...

April 5, 2018

NRA to remove most dosimeters in Fukushima as radiation drops

<http://www.asahi.com/ajw/articles/AJ201804050009.html>

By MASANOBU HIGASHIYAMA/ Staff Writer

Japan's nuclear watchdog will remove 80 percent of its radiation dosimeters in Fukushima Prefecture to slash costs and alleviate unnecessary concerns, as air dose rates have decreased significantly since the nuclear crisis unfolded in 2011.

The Nuclear Regulation Authority (NRA) on March 20 decided to stop using 2,400 of 3,000 radiation meters set up in elementary schools, parks and elsewhere in the prefecture.

While there are 600 extra monitoring posts for long-term radiation measuring, local municipalities and Tokyo Electric Power Co. have also introduced hundreds of dosimeters in the prefecture. The latest removal plan will not cover those long-term radiation meters.

"Although the number of radiation meters will be reduced, our measuring network will never fail to cover any locations when problems occur at the Fukushima No. 1 nuclear power plant," said an NRA official. The decision was reached because radiation figures are below the threshold level of 0.23 microsieverts per hour in most areas thanks to the progress of decontamination work, seven years after the disaster started at TEPCO's Fukushima plant.

Another reason behind the move is that radiation meters will soon reach the end of their operating lives. While the NRA plans to change the arrangement of dosimeters, those installed near the nuclear facility will be maintained.

Under the plan, real-time systems to measure dose rates around facilities for children could be removed in regions sufficiently far from the nuclear plant. Meters in cities, towns and villages that are currently or have once been home to evacuation zones will be maintained.

Most of those areas now report radiation levels as low as before the disaster and readings higher than 0.23 microsieverts per hour are measured at only several points.

The thousands of dosimeters require annual maintenance costs of 360 million yen (\$3.39 million).

In addition, the NRA has received complaints from residents, with one of those saying, **"The existence of radiation meters could mistakenly make people believe dose rates are high in the area."**

In response to those issues, the NRA decided to reduce the number of dosimeters to around 600 in three years. It will determine which meters to remove after holding talks with residents, starting in April, according to NRA officials.

Fukushima as "a stage"



Hiroaki Shinmura is seen dressed as Zenigata Heiji, a period drama character, visiting the home of a 91-year-old patient in Iwaki, Fukushima Prefecture, on Feb. 8, 2018. A nurse, right, is also wearing a period costume. (Mainichi)

April 11, 2018

Fukushima doctor visits elderly patients dressed as period drama characters

https://mainichi.jp/english/articles/20180411/p2a/00m/0na/010000c#cxrecs_s

IWAKI, Fukushima -- A hospital director here has taken to visiting elderly patients dressed as period drama characters in an attempt to cheer them up.

Hiroaki Shinmura, 50, head of Tokiwakai Joban Hospital, tends to dress as the Zenigata Heiji character, an Edo-period policeman, when he makes his visits, but is happy to switch to other characters such as Toyama no Kin-san and Mito Komon in response to patients' requests.

Female nurses also dress up and accompany Shinmura, as he tries to fulfill his dream of creating a community in which "elderly people would like to live."

The prefectural city of Iwaki was heavily affected by the Great East Japan Earthquake in March 2011. In the aftermath of the disaster, water and electricity at Joban Hospital stopped running, putting the hospital under immense pressure. The number of dialysis patients at the hospital, which was about 700, was the largest in Fukushima Prefecture at the time.

A few years later, around 2015, Shinmura kicked off his costumed home visits, which he conducts once a month.

In one of his more recent visits, he went to the Iwaki home of a woman in her 80s, dressed as Zenigata Heiji and carrying the appropriate props -- bringing a smile to the woman's face as she greeted him at the door.

"How's your condition?" Shinmura asked the woman. "The color of your face is healthy," he told the woman's husband, who jokingly replied, "The afterlife is full up. Apparently they don't want us yet," adding, "Your visits somehow manage to cheer us up."

In the aftermath of 3.11, it became impossible to provide dialysis to patients at Joban Hospital, each of whom required the treatment three times a week. Shinmura took action and asked the Fukushima Prefectural Government as well as medical institutions across the prefecture to help out. However, the Fukushima No. 1 Nuclear Power Plant disaster had put the entire prefecture in a state of confusion, prompting Shinmura to seek help in other prefectures. In the end, institutions and local governments in Tokyo, Chiba and Niigata prefectures accepted the dialysis patients and their relatives, and all the patients were saved.

The sight of the relieved patients was a turning point in Shinmura's life. "I came to realize that life is transient and that infrastructure, which I previously considered to be very robust, is in fact fragile. It made me think that if there's anything that can be done now, I should do it immediately."

In late March 2011, Shinmura returned to Joban Hospital and examined a considerable number of patients including those who had evacuated from their homes following the power plant disaster. He noticed that there was a sadness and lack of vitality in the patients' expressions. The number of patients with mobility issues increased, perhaps due to a reluctance to venture outside because of radiation fears, raising demand for home visits.

However, he noticed that visiting patients' homes in white coats was not conducive to frank conversation, because it felt like they were at the hospital. Then one day, Shinmura had a "eureka" moment. He appeared in a period costume for an event for inpatients, who seemed delighted by the sight, and Shinmura slapped his knee, saying, "This is it!"

The realization prompted him to purchase kimonos, wigs and props from a firm specializing in stage costumes. He then got into character and discovered that visiting elderly patients' homes dressed as

Zenigata Heiji put the patients at ease and led to them talking about events in their daily lives. It also helped Shinmura understand his patients' concerns, joys and lifestyle habits.

Around New Year's, Shinmura tends to dress as the god of wealth, Daikokusama. When plum flowers blossom, he goes for Mito Komon and when cherry blossoms emerge, he opts for Toyama no Kin-san. In total, there are no fewer than 50 characters in his repertoire, which includes fairytale characters such as Kintaro.

In the aftermath of the Kumamoto Earthquake, in April 2016, Shinmura sent backup staff to clinics in the city of Kumamoto, partly to repay his gratitude for the support he received for his dialysis patients after the 3.11 disaster.

Even as this interview is taking place, Shinmura is on his way to do another home visit dressed in character. "Take care," say hospital staff members and patients with a smile, as he heads for another period drama-style visit.

(Japanese original by Shinichi Kurita, Tokyo Regional News Department)

218 billion yen of taxpayers' money needed to cover interest on TEPCO loans

April 10, 2018

Study: Interest on TEPCO loans to cost taxpayers 218 billion yen

<http://www.asahi.com/ajw/articles/AJ201804100003.html>

THE ASAHI SHIMBUN

An estimated 218.2 billion yen (\$2.06 billion) of taxpayers' money will be needed to cover the interest on loans extended to Tokyo Electric Power Co. to deal with the Fukushima nuclear disaster.

The Board of Audit said TEPCO will require a maximum of 34 years to pay off loans totaling 13.5 trillion yen that were provided by financial institutions through the government.

The prediction was made based on an interest rate of 0.1 percent, but the rate could rise.

"The financial burden might increase," a Board of Audit official said.

The government borrows funds from financial institutions and provides them to TEPCO effectively as interest-free loans via the Nuclear Damage Compensation and Decommissioning Facilitation Corp.

Through the arrangement, the utility can pay compensation to evacuees of the accident at the Fukushima No. 1 nuclear plant and cover costs for decontamination and other procedures.

The ceiling for those funds was 9 trillion yen in 2013, but the limit was raised to 13.5 trillion yen by 2016.

Profits from TEPCO's sales of its shares, as well as electricity fees collected by power companies across Japan, will be used to pay back the huge debt. But all interest payments will be covered with taxpayers' money when the government repays the loans.

The Board of Audit estimates the TEPCO shares will be sold over a period from 19 to 34 years.

If the stock price rises, the loans will be repaid earlier, but a lower share price could lead to a delay in repayment.

During the repayment period, the government will have to pay 143.9 billion yen to 218.2 billion yen in interest, according to the forecast.

Another prediction put the amount of interest between 131.8 billion yen and 202.0 billion yen.

The Board of Audit in 2015 estimated the interest would total 126.4 billion yen.

(This article was written by Kosuke Tauchi and Takeshi Suezaki.)

Pay-skimming for Vietnamese cleanup workers

April 7, 2018

Contractor skimmed pay of Vietnamese trainees doing Fukushima cleanup work

<https://mainichi.jp/english/articles/20180407/p2a/00m/0na/015000c>

TOKYO -- A construction firm siphoned off the danger allowances of Vietnamese technical trainees it sent to do cleanup work in the Fukushima nuclear disaster area, the Environment Ministry announced on April 6.

The firm, which assigned the technical trainees to radioactive decontamination and home demolition work, used false wage records in explaining that the allowances had been paid. The Ministry of Health, Labor and Welfare is investigating the firm for suspected violations of the Labor Standards Act.

The foreign trainee system is intended to bring foreign workers from developing countries to Japan to learn technical skills.

The Environment Ministry has confirmed that the construction firm skimmed off the trainees' danger allowances in 2016 and 2017, when they worked at a demolition site in Kawamata, Fukushima Prefecture. One of the trainees spoke about the pay-skimming at a news conference on March 14 this year. However, the construction firm had given Environment Ministry investigators the falsified wage records, and Environment Minister Masaharu Nakagawa stated on March 27 that the danger allowances had been paid. (Japanese original by Kazuhiro Igarashi, Science & Environment News Department)

Japanese plant in Turkey?

March 15, 2018

Japan's nuclear export to Turkey in doubt as costs estimate doubles

<http://www.asahi.com/ajw/articles/AJ201803150046.html>

THE ASAHI SHIMBUN

The future of a Japanese-led nuclear power plant construction project in Turkey is in doubt after **estimated costs more than doubled to over 4 trillion yen (\$37.5 billion).**

It will also be difficult to complete the plant, planned in the Sinop district on the Black Sea coast, by the target year of 2023, according to sources close to the project.

Plans call for the construction of four new-type reactors co-developed by Mitsubishi Heavy Industries Ltd. (MHI) and a French partner. Trading house Itochu Corp. and other Japanese companies also plan to get involved.

The Japanese side unofficially informed its Turkish counterpart of the bloated cost this year, and the Turkish side expressed its "disappointment," the sources said.

Initially, the total project cost was estimated to be around 2.1 trillion yen (\$19.7 billion). However, it became clear during the course of a feasibility study that the four reactors would cost more than 1 trillion yen each.

The project partners were expected to shoulder the construction expenses and recoup the cost of their investment through revenue from power generation.

But if construction costs increase and the operator cannot charge more for electricity, it would be difficult for the project to turn a profit.

Still, the Japanese government intends to proceed with the project, and the Japanese side will soon submit its final feasibility report to the Turkish government.

The Japanese side will report that if the plan goes ahead, the construction will require financial support from the Turkish government and that electricity charges will be increased from initial estimates.

It remains unclear whether the Turkish side will accept those conditions, the sources said.

The project has strong backing from the Abe administration, which is pushing exports of Japanese nuclear technology as part of its growth strategy.

However, tougher safety standards introduced after the triple meltdown at the Fukushima No.1 nuclear power plant in 2011 have made it difficult for Japanese companies to make money in the global nuclear power industry.

(This article was written by Yasuaki Oshika and Tsuneo Sasai.)

TEPCO accused of negligence over tsunami wall

April 11, 2018

TEPCO worker: Boss scrapped tsunami wall for Fukushima plant

<http://www.asahi.com/ajw/articles/AJ201804110051.html>

THE ASAHI SHIMBUN

An employee of Tokyo Electric Power Co. testified in court that his boss abruptly ended preparations in 2008 to build a seawall to protect the Fukushima No. 1 nuclear plant from a towering tsunami.

"It was unexpected," the employee said of former TEPCO Vice President Sakae Muto's instructions during a hearing at the Tokyo District Court on April 10. "I was so disheartened that I have no recollection of what followed afterward at the meeting."

Muto, 67, was deputy chief of the company's nuclear power and plant siting division at the time.

He, along with Tsunehisa Katsumata, former TEPCO chairman, and Ichiro Takekuro, former TEPCO vice president, are now standing trial on charges of professional negligence resulting in death and injury over the 2011 nuclear disaster at the Fukushima No. 1 plant.

To prove negligence, prosecutors are trying to show that the top executives could have predicted the size of the tsunami that swamped the plant on March 11, 2011, resulting in the most serious nuclear accident since the 1986 Chernobyl disaster.

The employee was a member of a team tasked with compiling steps against tsunami at the earthquake countermeasures center that the utility set up in November 2007.

He reported directly to Muto.

According to the employee, TEPCO was considering additional safeguards on the instructions of the then Nuclear and Industrial Safety Agency for all nuclear plant operators to review their anti-earthquake measures.

The group weighed its options based on a long-term assessment of the probability of major earthquakes released by the science ministry's Headquarters for Earthquake Research Promotion in 2002.

The assessment pointed out that Fukushima Prefecture could be hit by a major tsunami.

Some experts were skeptical about the assessment, given that there were no archives showing a towering tsunami ever striking the area.

But the employee told the court, “Members of the group reached a consensus that we should incorporate the long-term assessment” in devising countermeasures.

The group asked a TEPCO subsidiary to conduct a study on the maximum height of a tsunami on the basis of the assessment.

The subsidiary in March 2008 informed the group that a tsunami of “a maximum 15.7 meters” could hit the Fukushima plant.

The group reported that number to Muto in June that year.

Based on Muto’s instructions, the group studied procedures on obtaining a permit to build a seawall to protect the Fukushima No. 1 nuclear plant, according to the employee.

But in July, Muto, without giving an explanation, told the group at a meeting that TEPCO will not adopt the 15.7-meter estimate, the employee said.

He said Muto’s decision stunned group members who had believed the company was moving to reinforce the plant.

The tsunami that caused the triple meltdown at the Fukushima No. 1 nuclear plant reached 15.5 meters.

But Muto and the two others on trial have pleaded not guilty, arguing that the 15.7-meter prediction was “nothing more than one estimate.”

Why the TEPCO management dropped the tsunami prediction will be the focus of future hearings.

Prosecutors had initially declined to press charges against the three former executives, citing insufficient evidence. However, a committee for the inquest of prosecution twice concluded that the three should be indicted.

Their trial began in June last year. Lawyers are acting as prosecutors in the case.

(This story was compiled from reports by Mikiharu Sugiura, Takuya Kitazawa and Senior Staff Writer Eisuke Sasaki.)

April 11, 2018

TEPCO staffer testifies execs put off tsunami measures at Fukushima plant

<https://mainichi.jp/english/articles/20180411/p2a/00m/0na/018000c>

TOKYO -- A Tokyo Electric Power Co. (TEPCO) employee testified in court here on April 10 that company executives decided to postpone tsunami prevention measures at the Fukushima No. 1 nuclear plant despite an assessment warning that a massive wave could hit the power station.

- **【Related】** Ex-TEPCO executives set to plead not guilty over Fukushima nuclear accident
- **【Related】** TEPCO asked subsidiary to underestimate tsunami threat at Fukushima nuke plant: worker

Three former TEPCO executives including former Vice President Sakae Muto, 67, are on trial for professional negligence causing death and injury over the Fukushima nuclear crisis triggered by the March 2011 Great East Japan Earthquake and tsunami. The TEPCO employee's statements at the trial's fifth hearing were in line with the arguments of the court-appointed attorney acting for the prosecution. Since 2007, the male employee had been part of an internal assessment group tasked with estimating the maximum height of tsunami which could strike the Fukushima No. 1 plant.

The group commissioned a TEPCO-affiliated company to estimate the size of potential tsunami, based on a long-term assessment made by the government's Headquarters for Earthquake Research Promotion that a massive wave could be generated by a quake in the Japan Trench, including off Fukushima Prefecture. In 2008, the TEPCO subsidiary reported that tsunami as tall as 15.7 meters could hit the plant.

In the trial, the employee stated, "I thought that TEPCO should take the assessment into consideration in taking (earthquake and tsunami) countermeasures, as the assessment was supported by prominent seismologists." He said he was so confident that the utility would take action that he emailed another working group at the company, "There will definitely be major renovations at the Fukushima No. 1 and other plants."

When the employee reported the assessment result to Muto, the then vice president gave him instructions that could be interpreted as an order to prepare to build a levee. However, the employee testified that Muto later shifted policy and called for an investigation into whether the long-term tsunami risk assessment is correct rather than taking tsunami countermeasures.

"I thought they (TEPCO) would consider taking tsunami prevention measures, but they changed policy unexpectedly and I lost heart," the employee told the court.

Along with Muto, former TEPCO President Tsunehisa Katsumata and Vice President Ichiro Takekuro were slapped with mandatory indictments in February 2016 after a decision by the Tokyo No. 5 Committee for the Inquest of Prosecution. Since the trial's first public hearing, the court-appointed lawyers for the prosecution have claimed that the executives put off tsunami countermeasures even though TEPCO staff tasked with estimating the maximum height of tsunami that could strike the Fukushima plant endeavored to address the threat. The defendants have argued that they did not put off the countermeasures.

(Japanese original by Ebo Ishiyama, City News Department, and Ei Okada, Science & Environment News Department)

Time to switch to green

April 13, 2018

Editorial: Japan must make concerted push to switch to green energy economy

<https://mainichi.jp/english/articles/20180413/p2a/00m/0na/017000c>

An expert committee at the Ministry of Economy, Trade and Industry recently finalized long-term energy plan recommendations through the year 2050. Solar, wind and other renewables were given pride of place as "main power sources," and we commend the committee for its proactive attitude to expanding green energy, a sector in which Japan lags behind countries in Europe and elsewhere.

- **【Related】** Japan pushes renewables, keeps nuclear in energy plan through 2050

However, there are many obstacles that must be overcome to realize this renewable energy future. To make sure this goal does not end up a mere flight of fancy, we call on the government to develop tactics that will get Japan steadily to its green energy goals.

The long-term energy plan recommendations were drawn up with the Paris Agreement limiting global warming in mind, and form the compass needle by which Japan's energy policy is plotted. Indeed, the government is looking to finalize Japan's revised basic energy plan as early as this summer, and it will reflect the committee's ideas.

The ultimate goal is for Japan to free itself entirely from carbon-based energy. That means ending dependence on fossil fuels -- oil, coal, and natural gas. Expansion of renewable energy plays the leading role in accomplishing this.

However, there are difficulties with renewables, including instability due to changes in the weather, high costs, and patching green energy generation sources into the electricity distribution network. That is likely why the committee recommendations set the target ratio of Japan's energy mix made up of renewables at 22 to 24 percent in 2030 -- the same as it is under the current basic energy plan.

For the sake of the long-term strategy and overcoming the aforementioned obstacles, the recommendations call for a plan to concentrate efforts on developing essential technologies such as storage batteries, hydrogen fuel systems, and smart electricity distribution systems. This idea is based on the belief that Japan cannot catch up with European countries and China if it uses existing technologies, and that it is necessary to put more efforts into developing next-generation technologies.

Creating new technology always takes time and money. Thus, the government must lay out a truly concrete path to get the work done. To cultivate renewables as the "main energy source," we call on Japan to leverage knowhow from the private and public sectors to make the best of existing high-efficiency electricity distribution technologies and the like, and to secure power sources that can compensate for the instability inherent in green energy generation.

One aspect of the recommendations is the positioning of nuclear power. The long-term energy strategy calls for atomic energy to be "reduced as much as possible," but also retains it as one option to help Japan free itself of fossil fuels. It would be difficult for the government to earn the public's understanding for retaining nuclear power by dressing it up as a just policy to wean the country off carbon.

Japan must end its dependency on nuclear power as quickly as possible. Making renewables this country's main energy source is a must for that to happen.

See also:

<https://www.japantimes.co.jp/opinion/2018/04/14/editorials/boost-renewable-energy-sources/>

Compensation, mental pain and resentment

April 13, 2018

Tepco's compensation for 3/11 victims has made matters worse for many

<https://www.japantimes.co.jp/news/2018/04/13/national/tepcos-compensation-3-11-victims-made-matters-worse-many/#.WtHv638uCos>

by Philip Brasor and Masako Tsubuku

Contributing Writers

As of the end of March, Tokyo Electric Power Company Holdings Inc. had paid more than ¥8 trillion in compensation (*baishōkin*) related to the Fukushima No. 1 reactor meltdowns of March 2011. About half of this money has gone to people living near the crippled reactors for "mental anguish" and the other half has gone to businesses whose livelihoods were destroyed or otherwise diminished by the disaster.

The payouts officially ended at the end of March, but Tepco is by no means out of the woods. There are numerous lawsuits against the company demanding additional compensation, and the central government has issued ¥13.5 trillion in bonds for interest-free loans to Tepco that are supposed to cover a wide range of expenses related to effects on residents and cleanup activities.

Tepco is supposed to pay back this money by 2051, and until then it's estimated that the government will have to pay bondholders more than ¥218 billion in interest — that is, if interest rates stay the same. This money, of course, will be covered by taxpayers.

In the years since Tepco started paying the compensation in Oct. 2011, a large group of people have therefore become dependent on it for their survival, and there is some concern regarding what this dependency will mean in the future.

As Toshiro Kitamura, a former director of Japan Atomic Power Co., told the Asahi Shimbun in an interview published on March 7, the people who were forced to move out of their homes, as well as many who moved voluntarily, were compensated for mental anguish (*seishin songai*) and loss of property, but the decision to pay compensation as well as the amounts paid were decided unilaterally by other people, namely Tepco and the government. People's emotional pain, he said, was "summarized" and all treated in the same way with fixed cash payments.

No effort was made to distinguish one victim's specific situation from another's. If someone objected to the amount through legal channels, they were likely to get more. Now these payments, or, at least, the first phase of these payments, are finished, but the pain, he says, remains. He should know. He was among those forced to evacuate.

The Asahi interviewer brings up the notion that the compensation actually made matters worse. People lost their living situations, which were then replaced with money.

Kitamura says that communities have been destroyed twice, once by the accident and again by the compensation, which has sown "jealousy and discontent," giving rise to social divisions, and not just in the affected areas.

Evacuees face discrimination wherever they live due mainly to the well-publicized money they receive. He mentions that the seven years of payments for mental anguish amounted to about ¥8.5 million per person, but Tepco has also determined that about 25,000 people from some areas that remain off-limits will get an additional one-time payment of ¥7 million each.

However, if the address of your former dwelling is outside this arbitrarily delineated area, you get nothing extra, which means, theoretically, that you could live across the street from someone who received this bonus.

Tepco loses nothing, essentially, since the government is loaning them money for free and the utility has added a special surcharge to electricity bills to cover cleanup and other expenses.

Everyone knows Tepco is paying for the accident — about ¥10.2 trillion altogether so far — and will be paying for it for years to come, but people's resentment is just as likely aimed at those who receive compensation.

There are no rules as to how these people can spend their money, which is not taxed, and so rumors spread about evacuees gambling or taking extravagant trips, and the resentment grows.

The payment for mental anguish was a very round ¥100,000 a month per person, so a family of five received ¥6 million a year. However, they could also receive payments to cover loss of property or employment, as well as reimbursement for things like transportation and housing if they rent, so the money could end up being much more.

In many cases, compensation ended when evacuation orders were lifted, for some districts as early as 2014, and in principle payments would stop for evacuees from these areas. But if they decided not to move back, they could probably still receive money.

Rent reimbursements were also supposed to stop in March, but the government has asked Tepco to continue providing funds for rent for at least another year.

Also, if the evacuees had a business affected by the accident, like a farm, they would get extra money as well.

There is even a form of compensation paid to current agricultural and forestry producers — who by definition are not evacuees — whose livelihoods have been damaged by “rumors” of radioactivity, meaning they can’t sell their goods even though they are not contaminated as far as the authorities are concerned.

According to the March 4 online edition of the Kahoku Shimpō, a Miyagi Prefecture newspaper, the return rate for residents of nine different areas whose evacuation orders were lifted a year ago varies widely, from a low of 3.3 percent to a high of 80.1 percent. The average return rate for the nine areas is only 15.3 percent.

According to NHK, 80 percent of the estimated 39,000 evacuees who moved outside of Fukushima Prefecture have not returned to their original areas of residence as of March.

Some local governments are spending money to lure new residents, since they don’t expect a lot of the old ones to come back. Tomioka offers new families with children ¥300,000, plus ¥180,000 per child per year for the first three years.

The reason former residents aren’t coming back is that, while the evacuation order was lifted and the area is considered safe, infrastructure is not back up to speed. Also, many of the evacuees are old.

Voluntary evacuees also received payments to cover rents in the places they moved to. For mental anguish they received a one-time payment of ¥120,000 (¥720,000 for persons under 19 and pregnant women). These payments stopped a year ago.

However, whenever evacuees sue Tepco for more compensation, they usually win. Last month, the Iwaki branch of the Fukushima District Court told Tepco to pay ¥610 million to 213 former residents of two Fukushima towns. (They had asked for ¥13 billion.) A Tokyo District Court in February awarded ¥1.1 billion to 318 people from Minamisoma, or about ¥3.2 million per plaintiff.

Probably the trickiest form of financial redress is for real estate. People who had to move or decided to move negotiate with Tepco to buy their old property at market value, but land in some zones is practically worthless, while the value of land in areas being redeveloped has gone way up in price due to demand.

So as the initial compensation period comes to a close for the time being, it’s important, as Kitamura suggests in the Asahi interview, to note that matters have not returned to the way they were at all, and they never will. That means the people affected will still need and demand and expect money from the government and Tepco. These people believe that their hometowns have been changed, perhaps ruined, forever, even those who decided to return and try to pick up where they left off.

“It wasn’t just their losses that were monetized,” Kitamura says. “It was their stress as well. As a result, they’ve become very sensitive about money, and will never stop saying, ‘It’s not enough.’”

More Vietnamese trainees involved in decontamination work

April 18, 2018

3 Vietnamese trainees newly found to have taken part in Fukushima cleanup work

<https://mainichi.jp/english/articles/20180418/p2a/00m/0na/020000c>

Three more Vietnamese technical intern trainees were sent by a contractor to carry out decontamination work at the Fukushima nuclear disaster area, it was learned from sources including a support organization.

- **【Related】** Contractors siphoned 1.6 million yen off pay of Vietnamese trainees sent to Fukushima
- **【Related】** Contractor skimmed pay of Vietnamese trainees doing Fukushima cleanup work

The number of foreign trainees known to have taken part in the decontamination work now totals four. The Organization for Technical Intern Training under the jurisdictions of the Ministry of Justice and the Ministry of Health, Labor and Welfare is investigating the facts behind the incidents and there is a possibility that the number will rise.

According to the Zentouitsu Workers Union based in Tokyo, the trainees in the latest incident are all males and aged 24 to 34. They came to Japan in July 2015 and joined the contractor in the city of Koriyama, Fukushima Prefecture, to make molds and reinforce metal bars.

Instead, the trio worked on decontaminating roads and other areas in Koriyama and the city of Motomiya, Fukushima Prefecture, from April 2016 to March 2018.

A supervisory organization for the contractor reportedly explained to the union that Koriyama and Motomiya were areas free of radiation exposure.

(Japanese original by Naoki Sugi, Maebashi Bureau)

Niigata governor quitting will affect nuclear future

April 18, 2018

Niigata governor to quit

https://www3.nhk.or.jp/nhkworld/en/news/20180418_35/

Niigata Governor Ryuichi Yoneyama has announced he's stepping down over an alleged sex scandal. His sudden departure throws into question the future of a nuclear power plant in the central Japan prefecture. Yoneyama has been cautious about the plant operator's efforts to restart the facility.

Yoneyama held a news conference on Wednesday, the day before a weekly magazine was expected to run a story about the scandal.

Yoneyama revealed that he had tendered his resignation earlier in the day to the chairperson of the prefectural assembly.

He said he decided to resign to avoid further turmoil and take responsibility for his actions. He added that he wanted to offer his sincere apology for undermining the trust of many people.

Yoneyama was elected governor in October 2016, with the recommendation of the Japanese Communist Party, the Liberal Party, and the Social Democratic Party.

He has been cautious about the restart of the Kashiwazaki-Kariwa nuclear power station in the prefecture.

It is run by Tokyo Electric Power Company, the operator of the Fukushima Daiichi nuclear plant, which was crippled by the March 2011 earthquake and tsunami.

The utility has been seeking local consent to restart the Kashiwazaki-Kariwa plant.

Governor quits over sex scandal, affects nuclear reactor restart

<https://mainichi.jp/english/articles/20180418/p2g/00m/0fp/074000c>

April 18, 2018 (Mainichi Japan)

NIIGATA (Kyodo) -- Niigata Gov. Ryuichi Yoneyama said Wednesday he will resign after admitting to a sex scandal in a move affecting the approval process for the restart of Tokyo Electric Power Company Holdings Inc.'s nuclear reactors in the central Japan prefecture.

- **【Related】** Niigata governor to decide in few days if he'll resign over alleged affair
- **【Related】** TEPCO's Niigata nuclear plant set to clear screening to restart reactors

"I sincerely offer apologies for betraying the trust of many people," Yoneyama told a press conference, admitting that his relationship with a woman, as described in a weekly magazine due out Thursday, may "look to some as prostitution."

Shukan Bunshun magazine alleged in an online teaser article Wednesday that the 50-year-old governor has been paying money to have sex with a 22-year-old college student. At a news conference Wednesday, the governor said he gave a woman he met online "presents and money so she would like me more."

Since being elected governor in 2016, Yoneyama has refrained from approving the restart of the No. 6 and 7 reactors at the Kashiwazaki-Kariwa nuclear complex.

The governor has said he cannot make the decision until the prefectural government completes its own assessment of what caused the Fukushima Daiichi nuclear disaster in 2011.

All seven Kashiwazaki-Kariwa units are boiling water reactors, the same as those at the Fukushima Daiichi nuclear plant where three of six reactors melted down in the days after a massive earthquake and tsunami in March 2011. Last December, two reactors at the Kashiwazaki-Kariwa complex cleared safety reviews under the stricter, post-Fukushima regulations.

On Tuesday, Yoneyama said he would consider whether to quit over a forthcoming magazine article about a "woman issue." Calls for his resignation were growing in the Niigata prefectural assembly.

The gubernatorial election to pick Yoneyama's successor is expected to be held in early June. Yoneyama will resign with two and a half years of his term remaining.

The seven-reactor Kashiwazaki-Kariwa complex is one of the world's largest nuclear power plants with a combined output capacity of 8.2 million kilowatts.

Facing huge compensation payments and other costs stemming from the Fukushima disaster, Tepco is keen to resume operation of its reactors to improve its financial performance.

The Japanese government of Prime Minister Shinzo Abe also supports restarting nuclear reactors that have cleared post-Fukushima safety reviews.

Yoneyama won the Niigata governorship in October 2016 with the support of the Japanese Communist Party and the Social Democratic Party, which are both opposed to nuclear power. He defeated contenders including a candidate backed by Abe's Liberal Democratic Party and its junior coalition partner Komeito.

Governor resigns. What now?

April 19, 2018

Will resignation of key governor weaken Japan's anti-nuclear movement?

by Stephen Stapczynski
Bloomberg

A governor who has been blocking the restart of the world's biggest nuclear power plant in his prefecture has resigned, but **it remains to be seen whether the move will create an opening for the nation's pro-nuclear forces.**

Niigata Gov. Ryuichi Yoneyama, who campaigned on his opposition to restarting Tokyo Electric Power Co. Holding Inc.'s Kashiwazaki-Kariwa reactors, said Wednesday he would resign over allegations he paid women for sex.

The governor was one of a few high-profile opponents to nuclear power, which the public has viewed with skepticism since the 2011 Fukushima disaster. **He was also the biggest roadblock for Tepco's effort to run reactors in his prefecture, two of which have been given the all-clear by regulators.** Although the country has imposed stronger safety regulations since 2011, only five of its 39 operable reactors are online.

"Yoneyama was not a leader, but certainly an important figure in a position to influence the fate of reactors," said Jeff Kingston, the director of Asian studies at Temple University's Japan campus. "Not many of those, so he will be missed."

Yoneyama repeatedly said he wouldn't support a restart until a panel of experts appointed by the prefecture investigate the Fukushima disaster and study evacuation plans in case of an emergency at Tepco's Niigata plant. He said in January that the process would take at least three years.

When is the next election?

A vote is likely to be held around the beginning of June, according to an official at the prefecture's election commission. The assembly president will officially inform the commission of Yoneyama's resignation in the coming days, which will then trigger a gubernatorial election within 50 days.

Would the next governor also oppose restarts?

Probably. **The last two governors were against restarting the reactors and 64 percent of voters in the last election opposed the move,** according an exit poll conducted by the Asahi Shimbun.

"It is likely that the next governor will continue an anti-restart policy," wrote Daniel Aldrich, a professor at Northeastern University, in an email. "Anti-nuclear sentiment is still high across the country."

Prime Minister Shinzo Abe's Liberal Democratic Party supports the restarts, while most of the opposition parties don't. Both sides will likely field candidates.

High-ranking officials from the Constitutional Democratic Party, the nation's largest opposition party, which is also against nuclear restarts, and the Democratic Party told the Sankei Shimbun Wednesday that opposition parties should band together behind one candidate.

Tamio Mori, who was backed by the LDP in the 2016 Niigata election, could be a potential contender for Abe. Mori is the former mayor of Nagaoka City, and was seen as the more pro-nuclear candidate in the 2016 election when he captured 46 percent of the vote. He didn't respond to an emailed request for comment.

What about the review panel?

This timeline for its work might speed up if the new governor is pro-restart, according to Miho Kurosaki, an analyst at Bloomberg New Energy Finance.

“I don’t think the panel review will be removed fully,” said Kurosaki, highlighting **lingering safety concerns in the community over a 2007 earthquake that temporarily shut the facility.**

Does Tepco even need local approval?

While the local governor’s approval is traditionally sought by utilities before they resume operations at a reactor, it’s not required by law. Kyushu Electric Power Co. continued operating reactors at its Sendai facility despite opposition from a newly elected anti-nuclear governor in 2016.

“The ‘gentlemen’s agreement’ that has provided some unwritten capacity to nuclear host community decision makers is in fact quite weak,” Aldrich said. “Even if another anti-nuclear governor is elected within Niigata, I believe that the economic and political pressure on utilities will push them to restart reactors.”

Itochu withdraws from Turkey nuke project over costs

April 25, 2018

Japan’s Itochu withdraws from nuclear power plant project in Turkey

<https://www.japantimes.co.jp/news/2018/04/25/business/corporate-business/japans-itochu-withdraws-nuclear-power-plant-project-turkey/#.WuBr4n8uCos>

Kyodo

Major trading house Itochu Corp. is backing away from a nuclear power plant project in Turkey because of a surge in safety-related costs, sources close to the matter said Tuesday.

Itochu withdrew at the end of March from a consortium that had been conducting a feasibility study for a 4,500-megawatt plant in the Black Sea coast city of Sinop. Another Japanese company, Mitsubishi Heavy Industries Ltd., will continue participating in the study.

It is now deemed difficult for the plant to become operational in 2023 as targeted, amid surging costs linked to safety measures and with total costs for the project ballooning to more than double the initially estimated ¥2 trillion (about \$18.5 billion).

Safety-related costs to build nuclear plants have soared since the 2011 nuclear disaster at the Fukushima No. 1 plant, triggered by a magnitude 9 earthquake and ensuing tsunami.

Japan and Turkey agreed on the project in 2013, with the government of Prime Minister Shinzo Abe eager to export nuclear technology to emerging economies such as Turkey and India as part of the government’s growth strategy.

Foreign trainees indispensable?

May 1, 2018

Foreign workers vital for Japanese contractor in cleanup at Fukushima nuke plant

<https://mainichi.jp/english/articles/20180501/p2a/00m/0na/004000c>

FUKUSHIMA -- Foreign technical intern trainees have been employed in what is said to be a 40-year-long decommissioning operation underway at the Fukushima No. 1 Nuclear Power Plant operated by Tokyo Electric Power Co. (TEPCO) in the wake of devastating core meltdowns in 2011. While they are not supposed to be there under TEPCO policy, they are still considered indispensable by their employer, commissioned by TEPCO.

- 【Related】 Despite ban, foreign trainees working at crippled Fukushima nuclear plant
- 【Related】 3 Vietnamese trainees newly found to have taken part in Fukushima cleanup work
- 【Related】 Gov't to ban use of foreign trainees for radioactive decontamination work

The homelands of the interns include Vietnam, a country that abandoned plans to import a nuclear reactor from Japan two years ago. **As trainees, they are supposed to "transfer" their experiences in Japan to their compatriots back home. But in the case of Vietnam, there is no chance of using such know-how in the non-nuclear country.** What is going through the minds of the trainees as they engage in this work?

"Hosha-kei, hosha-kei, hosha-kei," one foreign worker repeated when the Mainichi Shimbun asked six workers from Vietnam and elsewhere about their job at the plant in February. It was not clear whether he meant radiation, radioactivity or a dosimeter.

"The job is easy and many Japanese workers are with us. I think (safety) is OK," said another foreign worker who had the best command of the Japanese language in the group. The location they started working last fall is outside the radiation controlled areas and everyone there is in ordinary workers' outfits.

The president of the Tokyo-based company that employs the six has nothing but praise for them. "People say they are so good at their work. I depend on them very much." The six workers make up two-thirds of the company's workforce, which also includes three Japanese nationals.

When the company was founded some 30 years ago it employed over 20 Japanese workers in their 20s, but now foreigners are vital for its operations. Says the president: **"Japanese youngsters quit easily but foreigners stick with us because they borrow heavily to come to Japan and cannot go home at least for three years,"** a requirement for technical intern trainees.

The six each borrowed between 1.2 million and 1.5 million yen to pay for their trip to Japan and other expenses. Four of them are paying back the debt as they work. They all share a one-story, three-room wooden apartment near the plant that includes a small dining room and a kitchen.

When one male foreign worker who barely spoke Japanese was asked why he came to Japan, he replied in Japanese, "Okane" (money).

The workers have not told their families they are working at the nuclear plant. "My family would worry and tell me to come home," one man said in broken Japanese.

(Japanese original by Shunsuke Sekiya, Chiba Bureau)

Roads should not be built with contaminated material



April 29, 2018

Plastic bags filled with radioactive soil are placed in temporary storage in Nihonmatsu, Fukushima Prefecture, in October. | KYODO

Fukushima residents fight state plan to build roads with radiation-tainted soil

<https://www.japantimes.co.jp/news/2018/04/29/national/fukushima-residents-fight-state-plan-build-roads-radiation-tainted-soil/#.WuqtVX8uCos>

Kyodo

FUKUSHIMA – The Environment Ministry plans to use radiation-tainted soil to build roads in Fukushima Prefecture, starting with trials in the city of Nihonmatsu next month.

But in the face of fierce protests from safety-minded residents, the ministry is struggling to advance the plan.

“Don’t scatter contaminated soil on roads,” one resident yelled during a Thursday briefing by Environment Ministry officials in Nihonmatsu.

The officials repeatedly tried to soothe them with safety assurances, but to no avail.

“Ensuring safety is different from having the public feeling at ease,” said Bunsaku Takamiya, a 62-year-old farmer who lives near a road targeted for the plan. He claims the project will produce groundless rumors that nearby farm produce is unsafe.

Seven years after the March 2011 core meltdowns at the Fukushima No. 1 nuclear plant, Takamiya has finally been able to ship his produce in Fukushima without worry. Then the ministry’s soil plan surfaced.

A woman in the neighborhood agrees.

“The nature and air here are assets for the residents. I don’t want them to take it away from us,” she said.

Under the plan, tainted soil will be buried under a 200-meter stretch of road in the city. The soil, packed in black plastic bags, has been sitting in temporary storage.

The plan is to take about 500 cu. meters of the soil, bury it under the road at a depth of 50 cm or more, cover it with clean soil to block radiation, and pave over it with asphalt. The ministry intends to take measurements for the project in May.

Fukushima is estimated to have collected about 22 million cu. meters of tainted soil at most. The ministry plans to put it in temporary storage before transporting it to a final disposal site outside the prefecture. The idea is to reduce the amount. The ministry thus intends to use soil with cesium emitting a maximum of 8,000 becquerels per kg in public works projects nationwide.

The average radiation level for soil used for road construction is estimated at about 1,000 becquerels per kg, the ministry says.

The ministry has already conducted experiments to raise ground levels in Minamisoma with the tainted soil, saying "a certain level" of safety was confirmed.

Similar plans are on the horizon regarding landfill to be used for gardening in the village of Iitate. But it is first time it will be used in a place where evacuations weren't issued after the March 2011 meltdowns.

Given the protests, an official linked to the ministry said, "It's difficult to proceed as is."

Fukushima disaster WAS preventable

May 10, 2018

Seismologist testifies Fukushima nuclear disaster preventable

<https://mainichi.jp/english/articles/20180510/p2a/00m/0na/017000c>

TOKYO -- A seismologist has testified during the trial of three former executives of Tokyo Electric Power Co. (TEPCO), operator of the tsunami-ravaged nuclear plant, that the nuclear crisis could have been prevented if proper countermeasures had been taken.

- **【Related】** TEPCO staffer testifies execs put off tsunami measures at Fukushima plant
- **【Related】** TEPCO asked subsidiary to underestimate tsunami threat at Fukushima nuke plant: worker
- **【Related】** Family laments man's death as former TEPCO execs are indicted

"If proper steps had been taken based on a long-term (tsunami) evaluation, the nuclear accident wouldn't have occurred," Kunihiro Shimazaki, professor emeritus at the University of Tokyo, told the Tokyo District Court on May 9.

Shimazaki, who played a leading role in working out the national government's long-term evaluation, appeared at the 11th hearing of the three former TEPCO executives as a witness.

Prosecutors had initially not indicted the three former TEPCO executives. However, after a prosecution inquest panel consisting of members of the public deemed twice that the three deserve prosecution, court-appointed lawyers serving as prosecutors indicted the three under the Act on Committee for Inquest of Prosecution.

Court-appointed attorneys insist that former TEPCO Vice President Sakae Muto, 67, and others postponed implementing tsunami countermeasures based on the long-term evaluation, leading to the disaster. The government's Headquarters for Earthquake Research Promotion released its long-term evaluation in 2002 predicting that a massive tsunami could occur along the Japan Trench including the area off Fukushima.

In 2008, TEPCO estimated that a tsunami up to 15.7 meters high could hit the Fukushima No. 1 power station, but failed to reflect the prediction in its tsunami countermeasures at the power station.

The Cabinet Office's Central Disaster Prevention Council also did not adopt the long-term evaluation in working out its disaster prevention plan.

Shimazaki, who was a member of the Headquarters for Earthquake Research Promotion's earthquake research panel in 2002, told the court that the Cabinet Office pressured the panel shortly before the announcement of the long-term evaluation to state that the assessment is unreliable. The headquarters ended up reporting in the long-term evaluation's introduction that there were problems with the assessment's reliability and accuracy.

In his testimony, Shimazaki pointed out that the Central Disaster Prevention Council decision not to adopt the long-term evaluation led to inappropriate tsunami countermeasures.

With regard to factors behind the council's refusal to accept the evaluation, Shimazaki stated that he can only think of consideration shown to those involved in the nuclear power industry and politics.

"If countermeasures had been in place based on the long-term evaluation, many lives would've been saved," Shimazaki told the court.

Shimazaki served as deputy chairman of the government's Nuclear Regulatory Authority after the Fukushima nuclear disaster.

(Japanese original by Epo Ishiyama, City News Department, and Ei Okada, Science & Environment News Department)

Quake expert tells court that nuclear disaster was preventable

<http://www.asahi.com/ajw/articles/AJ201805100060.html>

By MIKIHARU SUGIURA/ Staff Writer

May 10, 2018 at 17:35 JST



A collapsed crane and other debris at the crippled Fukushima No. 1 nuclear power plant after tsunami devastated the area on March 11, 2011 (Provided by Tokyo Electric Power Co.)

The architect of a key earthquake forecast testified in court May 9 that the 2011 nuclear disaster in Fukushima Prefecture could have been prevented if his warning had been heeded.

Kunihiko Shimazaki was testifying in proceedings against three former executives of Tokyo Electric Power Co., operator of the stricken Fukushima No. 1 nuclear power plant, accused of professional negligence resulting in the deaths of 44 people and related injuries to others who had to be evacuated from a hospital near the facility.

While the Tokyo District Public Prosecutors Office decided not to press charges against the three, citing a lack of evidence, independent judicial panels of citizens voted for mandatory indictments against them. Shimazaki compiled the earthquake forecast in July 2002 while he worked at the government's Headquarters for Earthquake Research Promotion.

His report warned that a magnitude-8 level earthquake could strike off the Sanriku coast in the northeastern Tohoku region to as far south as the Boso Peninsula in Chiba Prefecture.

Shimazaki said in court that 10-meter-high tsunami was predicted for a wide area from the Tohoku to Kanto regions.

The trial at the Tokyo District Court was the 11th to determine the responsibility of those who held executive positions at TEPCO when the Great East Japan Earthquake hit on March 11, 2011, spawning towering tsunami that inundated the plant and caused it to go into a triple meltdown.

Shimazaki, professor emeritus of seismology at the University of Tokyo, served on a committee at the earthquake research body from 1995 to 2012 and played a pivotal role in the compilation of a long-term assessment of the probability of major earthquakes occurring in his capacity as head of the quake panel. When the lawyer acting as prosecutor asked Shimazaki about the process of compiling the report, he explained that numerous opinions were expressed by "experts with various perspectives." He said the common denominator that everyone agreed on was the likelihood of a major earthquake striking at some point.

Shimazaki also asserted that the Cabinet Office took issue with "the range in credibility of the data" prior to and after the release of the quake forecast, which he labeled as interference and "non-scientific."

Defense lawyers have entered pleas of innocence on behalf of their clients, citing the low reliability of the forecast.

Shimazaki noted that his report undoubtedly annoyed operators of nuclear power plant

Monju wasn't worth it

May 12, 2018

Japan nuclear research project did not pay off: auditors

https://mainichi.jp/english/articles/20180512/p2g/00m/0dm/030000c#cxrecs_s

TOKYO (Kyodo) -- Japan's nuclear research project using a fast-breeder reactor did not yield sufficient results despite taxpayer money spent on it, state auditors said Friday.

- **【Related】** Editorial: Monju reactor will be decommissioned, but mountain of uncertainty remains
- **【Related】** Monju reactor set for decommissioning lacks sodium removal method
- **【Related】** Monju fast-breeder reactor operator insiders say project is a failure: survey

The project involving the trouble-plagued Monju prototype reactor, developed to play a key role in fuel recycling, only achieved 16 percent of the planned results while costing the government at least 1.13 trillion yen (\$10.3 billion), the Board of Audit of Japan said.

The government has already decided to scrap the reactor, estimating an additional cost of 375 billion yen. But the board noted that the 30-year decommissioning plan could cost more.

The reactor, designed to produce more plutonium than it consumes while generating electricity, barely operated over the past two decades as it experienced a series of problems, including a leakage of sodium coolant and equipment inspection failures.

"Flawed maintenance led to the decommissioning," the auditors concluded in their report.

But the report also brought into the spotlight the absence of systematic evaluation of the project by the auditors as they expressed their opinion on Monju's research and development costs only once in 2011. Monju was only up and running 250 days after starting operations in 1994, failing to complete test items, according to the report.

On the scrapping cost, the report said it could expand because the current estimate does not include personnel costs and taxes, while noting that the cost of removing the radioactive sodium coolant could change.

London steps in to cover (Hitachi's) losses

May 9, 2018

London offers to backstop all debt for Hitachi's UK nuke plant project

<https://mainichi.jp/english/articles/20180509/p2a/00m/0na/023000c>

TOKYO -- The British government has proposed to Hitachi Ltd. that London backstop all loans to cover a new nuclear power plant in the country to be built and operated by a subsidiary of the Japanese firm.

- **【Related】** Hitachi requests British PM's support for nuclear plant construction
- **【Related】** Japanese gov't to guarantee bank loans for Hitachi's nuclear plant project in Britain

The Japanese government had been planning to guarantee the loans. However, London has signaled its willingness to up its financial commitment to the project with the debt guarantee, after Hitachi had called for increased support. With the move, Hitachi is expected to approve continued investment in the plant within the month.

On May 3, Hitachi Chairman Hiroaki Nakanishi met with British Prime Minister Theresa May in London to discuss UK government backing for the plant. It appears British officials indicated they would provide backing for the project including loan guarantees, and urged Hitachi to move ahead.

Hitachi, which bought the UK nuclear station development operation in 2012, plans to have the plant up and running in the mid-2020s. According to a source close to the project, it is expected to cost about 3 trillion yen (about 20.2 billion pounds, or \$27.4 billion). The financing structure being considered would see 2 trillion yen of that covered by loans from British and Japanese financial institutions, with the remaining 1 trillion yen invested by Hitachi and both national governments.

Japan's three megabanks plus the government-backed Japan Bank for International Cooperation are set to provide loans for the project. Initially, the financing from the big banks was set to be guaranteed by the wholly Japanese government-owned Nippon Export and Investment Insurance body. However, in late April the British government apparently suggested to Hitachi that the UK was willing to cover loans for the plant issued by both Japanese and British financial firms. Just before this, Hitachi had told London that it may pull out of the project if Britain was not ready to up its support.

Under the loan guarantee, any nuclear plant project investment losses due to accidents or other causes may ultimately have to be covered by Britain's public purse. While the move does not directly lessen

Hitachi's own risk as compared to the Japanese government guaranteeing the debt, London stepping in to cover losses should the project fail provides more assurance of continuing British support.
(Japanese original by Ryo Yanagisawa and Takayuki Sakai, Business News Department)

Japan's latest energy plan

May 16, 2018

Japanese government releases latest energy plan

https://www3.nhk.or.jp/nhkworld/en/news/20180516_34/

Japanese government officials have released the country's medium-to-long term energy policy. The plan focuses on making better use of solar power and other renewables to help fight climate change.

The policy is reviewed every 3 years. The new plan outlines targets toward 2050 in line with the Paris accord. It aims to reduce Japan's generating costs for renewable energy to international levels. The goal is to make renewables the country's main source of power.

The continued development of nuclear technology is still included as one way toward a carbon-neutral society.

But the plan does not include new construction of nuclear plants, calling for reducing reliance on nuclear energy as much as possible.

The total energy-mix target is unchanged from the previous plan. It puts renewables at 22 to 24 percent and nuclear power at 20 to 22 percent. It also puts thermal generation at about 56 percent.

Some panel members have urged a review of the energy-mix ratio. Experts say Japan may be lagging behind the global trend in promoting renewable resources.

Industry ministry officials say they will seek opinions on the plan, and aim for Cabinet approval as early as July.

Energy future: Govt's approach "outdated"

May 18, 2018

EDITORIAL: METI's new energy agenda is still powered by old thinking

<http://www.asahi.com/ajw/articles/AJ201805180028.html>

The government's new energy policy agenda is wedded to an old, outdated approach, turning its back on growing domestic and overseas movements toward new policy goals.

It clearly suggests that the government is failing to see the big picture.

The Ministry of Economy, Trade and Industry (METI) on May 16 unveiled a draft of the government's fifth basic energy plan intended for Cabinet approval this summer.

The draft says the government should maintain its traditional energy policy principles, making it clear that the new plan will be similar in many ways to the current one.

As in the past basic energy plans, nuclear and coal-based thermal power stations are described as "important base load power sources" despite the tough business situations for them.

In the world, radical structural changes are beginning to occur in energy supply and consumption. One important and growing trend is "decarbonization" of the energy mix, which means replacing fossil fuels with renewable energy sources such as solar and wind power.

Another is dispersed power generation, or widespread use of small-scale power-generation facilities combined with storage batteries and other necessary equipment for more efficient production and consumption of electricity. These trends will have far-reaching effects on society.

The draft energy plan raises some serious questions and concerns about the government's vision for the energy future of the nation. If it adheres to the traditional energy policy, can the government make effective responses to the powerful, transformative changes occurring in the energy sector? Will this stance not cause Japan to fall behind key energy policy trends in the world?

We cannot support the proposed new basic energy plan.

UNREALISTIC POWER SOURCE GOALS

The basic energy plan is supposed to define a medium- to long-term direction for the government's energy policy and is reviewed periodically by the government.

Since 2014, when the current basic plan was endorsed by the Cabinet, myriads of significant changes concerning energy have taken place both at home and abroad.

Renewable energy has been spreading at an accelerating pace in both industrial and emerging countries due to a spurt of technological innovations and declining costs.

The Paris climate accord to stem global warming has been negotiated and put into effect, creating strong headwinds for coal-burning thermal power generation, which emits large amounts of greenhouse gasses. The costs of nuclear power generation have risen sharply mainly because of tighter safety standards introduced in many countries following the 2011 Fukushima nuclear disaster. As a result, production of electricity using atomic energy has been on the wane, especially in industrial nations.

Businesses have responded quickly to the changes. Business investment and technology development efforts in the sector have been focused mostly on such areas as renewable energy development, control on power transmission and consumption and power storage, creating huge new markets. Japan has been lagging behind these new trends.

But METI is refusing to face up to the changing reality.

Hiroshige Seko, the minister of economy, trade and industry, said, "We don't think there has been any major technological change, and it is too early to alter the (energy policy) framework." He could not be more grossly mistaken.

The biggest mistake METI has made is its decision to remain committed to the policy targets for the energy mix it set in 2015 under the current basic plan. The document says the government should step up its efforts to achieve the targets.

The targets are based on the assumption that nuclear power generation and renewable energy will account for around 20 percent each of Japan's overall power production in fiscal 2030. Under the plan, about 30 nuclear reactors will be running then, far more than the number of offline reactors that have been restarted so far, eight.

Accomplishing the nuclear power targets will require extending the life of many aging reactors and building many new ones. Experts have criticized the targets as "unrealistic."

Meanwhile, use of renewable energy sources has been growing steadily, provoking calls for raising the share target among lawmakers in both the ruling and opposition camps.

The vision for the nation's energy future laid out in the draft new energy plan is badly out of synch with the major trends at home and abroad. It cannot serve as an effective road map for policy efforts in this era of great transition.

METI should first reconsider the energy source targets themselves. It needs to sharply lower the share of nuclear power generation while substantially raising that of clean energy.

NUCLEAR POLICY SHENANIGANS KEPT INTACT

There are also many problems with specific policy proposals.

As for atomic energy, the key issue, the draft contains two key principles--promoting reactor restarts to maintain nuclear power generation as the core power source and "lowering the nation's dependence (on nuclear power) as much as possible."

In reality, however, Prime Minister Shinzo Abe's administration has been pressing ahead with plans to bring offline reactors back on stream. The proposed new policy would allow the administration to continue pushing the nation gradually back to heavy dependence on nuclear power and making stopgap responses concerning the sticky issue of disposal of radioactive waste and the troubled nuclear fuel recycling program.

The Abe administration should confront the harsh realities concerning nuclear power generation, including the fact that a majority of the people are opposed to reactor restarts.

It should totally abandon its efforts to keep the nation dependent on atomic energy while pulling the wool over the people's eyes.

If its new energy policy calls for lowering the nation's dependence on nuclear power, the government is responsible to swiftly work out specific plans to achieve the goal.

METI has proposed to turn clean energy into a "mainstay power source" with good reason. As specific measures to do so, however, the document only refers to ideas that have already been discussed.

The ministry needs to plan an effective "next move" to deal with obstacles to promoting renewable energy, including higher costs than in many other countries.

The past basic energy plans were all focused on "stable supply" and designed to preserve the continuity of the policy traditions.

But this stance has led to such serious evils as denials of obvious failures and absurdities, including the nuclear fuel recycling debacle, and rigidities like adamant refusal to change course.

With regard to the development of the new plan, METI decided to maintain the policy "framework" intact at an early stage, limiting the scope of debate.

The ministry has remained skeptical about the viability of renewable power generation, which is in the process of evolution, while assigning a major role to both nuclear power and coal thermal generation

despite the raft of problems plaguing them. This stance seems to be a sign of inertia and inability to make gutsy decisions of the organization.

LAY OUT GRAND VISION FOR NEW AGE OF ENERGY

It is no doubt difficult to foresee the future. That makes multifaceted and transparency policy debate all the more important.

The Foreign Ministry has reportedly lobbied METI to sharply raise the target share for alternative energy sources in unofficial negotiations.

The Environment Ministry is critical of METI's proposal to make expansive use of coal.

Clearly, exhaustive, cross-ministry debate on the nation's energy future is in order.

Politicians also have a crucial role to play. Legally, the Diet has no power to reject the government's basic energy plan. The legislature is only briefed on the plan after the government decides on it.

But the Diet needs to get more actively involved in the process. It should take such steps as seeking opinions from experts and holding intensive discussions on related issues.

The government has a duty to present a viable future vision for the nation's energy supply system, which is part of vital infrastructure for social activities and people's lives, and chart a course toward that vision. Then it needs to thrash out concrete policy measures to realize the vision.

Unless it sends out convincing messages about a sustainable energy future for the nation, the government cannot open up a new age of energy.

--The Asahi Shimbun, May 18

May 16, 2018

Japan Announces Ambitious Plans For 20%-22% Nuclear Share By 2030

<https://www.nucnet.org/all-the-news/2018/05/16/japan-announces-ambitious-plans-for-20-22-nuclear-share-by-2030>

Policies & Politics

16 May (NucNet): Japan's government is committed to nuclear power accounting for at least one-fifth of the nation's electricity supply in fiscal year 2030, calling it an "important baseload energy source", according to a draft proposal.

For the first time, the government will specify the 20%-22% ratio in its basic energy plan. The draft was due to be presented today to an advisory panel with the Ministry of Economy, Trade and Industry, which oversees the nuclear industry.

The draft says the government will "further intensify efforts to achieve the target" and continue to push for nuclear fuel cycle policy in tandem with the export of nuclear technology.

The basic energy plan sets the government's mid- and long-term energy policy and is reviewed roughly every three years.

The government expects to gain Cabinet approval for the plan, the fifth of a series, this summer. The last one, approved by the Cabinet in 2014 and the first after the 2011 Fukushima-Daiichi accident, did not mention the breakdown of each energy source, although it described nuclear power as an "important baseload energy source."

The Japan Atomic Industrial Forum said about 30 reactors must be brought back online to meet the 20%-22% target.

The goal is achievable, according to the government, if existing reactors are allowed to operate for 60 years, beyond the 40-year lifespan in place under stringent regulations implemented after Fukushima-Daiichi.

Japan shut down all 42 commercial nuclear reactors after the accident. According to the International Atomic Energy Agency, the country's nuclear share in 2017 was about 3.6%. Before Fukushima, Japan generated about 30% of its electricity from nuclear and planned to increase that to 40%.

Last week the Ohi-4 nuclear reactor unit in Fukui Prefecture was connected to the grid as it approaches commercial operation. Ohi-4 will become the eighth nuclear plant at five sites to be restarted under new regulatory standards introduced following Fukushima-Daiichi.

Completing Shimane No.3 reactor

May 22, 2018

Power plant operator seeks consent for new reactor

https://www3.nhk.or.jp/nhkworld/en/news/20180522_21/

Chugoku Electric Power is seeking the consent of local governments to start the screening process to switch on a new nuclear reactor in western Japan.

The power company's No. 3 reactor at the Shimane Nuclear Power Plant was almost completed before the accident at the Fukushima Daiichi nuclear power plant in 2011. It's in the city of Matsue in Shimane Prefecture.

Under new regulations introduced after the Fukushima accident, the facility must pass a stringent screening process. Local governments must give their consent for the process to go ahead.

Chugoku Electric President Mareshige Shimizu visited the city and the prefectural offices on Tuesday.

Shimizu told Governor Zembee Mizoguchi that the reactor is essential for establishing a stable supply of power, reducing carbon dioxide emissions and stabilizing electricity rates.

The president handed the governor a consent request.

Mizoguchi replied that he will give the prefecture's response after consulting a safety committee whose members include local residents, as well as the prefectural assembly and neighboring municipalities.

This is the second time an operator has begun to start procedures to operate a new reactor since the

Fukushima accident.

Meiji University professor Tadahiro Katsuta, who specializes in nuclear power policy, says he believes technological advances have made reactors safer.

But he says other aspects should be considered, including the social circumstances, such as the demand for power and the effectiveness of evacuation plans.

He said residents should be allowed to express their views and time should be given for discussion.

Nukes as clean energy?

23.05.2018_No101 / News in Brief

World Needs To Get Serious About Nuclear Energy, Says US DOE Official

<https://www.nucnet.org/all-the-news/2018/05/23/world-needs-to-get-serious-about-nuclear-energy-says-us-doe-official>

23 May (NucNet): If the world is serious about reducing emissions and improving economies, governments must consider all options when it comes to carbon-free power, including clean, reliable nuclear energy, Dan Brouillette, deputy secretary of the US Department of Energy, said.

Mr Brouillette said the Ninth Clean Energy Ministerial in Copenhagen, Denmark, which pens today, brings together the world's top energy officials to discuss of policies and programmes that will promote the transition to a global clean energy economy.

But frequently the definition of “clean energy” does not include nuclear energy—the world's second largest source of low-carbon electricity, following only behind hydropower.

Mr Brouillette said the US, Canada, and Japan are launching the Nuclear Innovation: Clean Energy (Nice) Future initiative, whose aim is to make sure nuclear has a seat at the table during discussions about innovation and advanced clean energy systems of the future.

Innovative nuclear systems will play a critical role in worldwide decarbonisation, including use in many energy intensive applications such as desalination, industrial process heat, integrated nuclear-renewable systems, flexible electricity grids, hydrogen production and energy storage.

Mr Brouillette said the Nice Future initiative is gaining momentum. More than a dozen countries have already expressed interest in joining. **The initiative engages various organisations and stakeholders to focus on full-scale nuclear for baseload electricity** as well as innovative, next-generation technologies and integrated renewable-nuclear energy systems across four key areas.

More information about the Nice Future initiative: <https://bit.ly/2KPCVfp>

see also : <https://www.energy.gov/ne/nuclear-innovation-clean-energy-future>

Nukes become issue again in governor race

May 24, 2018

Nuclear policy in focus as campaigning begins in Niigata governor race

<https://mainichi.jp/english/articles/20180524/p2g/00m/0dm/077000c>

NIIGATA, Japan (Kyodo) -- Official campaigning began Thursday for next month's gubernatorial election in Niigata, with three contenders filing their candidacies for a race that could have a bearing on the possible restart of the world's largest nuclear power plant.

Voters in the central Japan prefecture could also effectively hand down a judgment on Prime Minister Shinzo Abe following the recent series of scandals involving his administration including allegations of cronyism against the prime minister over a heavily discounted land sale and a vet school project. The three candidates running for the June 10 election are Satoshi Annaka, a 40-year-old independent and former city assembly member from Gosen, Niigata; Hideyo Hanazumi, 60, backed by Abe's Liberal Democratic Party; and anti-nuclear former prefectural assembly member Chikako Ikeda, 57, endorsed by five opposition parties.

The LDP's junior coalition partner Komeito is expected to support Hanazumi, who has yet to clearly state whether he would approve the restart of the Kashiwazaki-Kariwa nuclear plant, sought by Tokyo Electric Power Company Holdings Inc.

Delivering a speech in the city of Niigata, Ikeda pledged to seek ways to "break with nuclear power" and promote the use of renewable energy. She also said she will continue safety checks of the nuclear plant and share the results with the public for a thorough discussion.

Hanazumi told an audience in the village of Awashimaura that he will improve medical and welfare services. "I will do all I can do to create a lively and comfortable prefecture to live in."

Annaka is opposed to nuclear power and has vowed to enhance agricultural policies.

The election comes after former Governor Ryuichi Yoneyama, who was reluctant to restart the nuclear complex, stepped down last month just before a weekly magazine disclosed that he had been paying several women for sex.

Fukushima mothers tell their story



May 28, 2018

Fukushima mothers at UN tell their story

<https://beyondnuclearinternational.org/2018/05/28/fukushima-mothers-at-un-tell-their-story/>

Posted on May 28, 2018 by beyondnuclearinternational

Evacuees from nuclear disaster urge the Japanese government to comply with UN Human Rights standards

By Linda Pentz Gunter, with contributions from Kurumi Sugita and Akiko Morimatsu

When Kazumi Kusano stood in the CRIIRAD radiological laboratory in Valence, France listening to lab director, Bruno Chareyron, describe just how radioactive the soil sample taken from a school playground back home in Japan really was, she could not fight back the tears.

"This qualifies as radioactive waste," Chareyron told them. "The children are playing in a school playground that is very contaminated. The lowest reading is 300,000 bequerels per square meter. That is an extremely high level." (*CRIIRAD is the Commission for Independent Research and Information about Radiation, an independent research laboratory and NGO*).

Kazumi, a Japanese mother and Fukushima evacuee who prefers not to use her real name, was in France with two other mothers, Mami Kurumada and Akiko Morimatsu — all of whom also brought their children — as part of an educational speaking tour. Morimatsu was also invited to testify before the UN Commission on Human Rights in Geneva, to launch an appeal for the rights of nuclear refugees.

In Japan, seven years since the March 2011 Fukushima nuclear disaster began to unfold, the government is requiring some refugees to return to the region. Says Chareyron, whose lab has worked extensively in the Fukushima zone, "the Japanese government is doing everything to force citizens to return to lands where the radiation doses that citizens and children should be subjected to are largely over the typically acceptable norms."

"People in Japan still don't believe that the effects they are feeling are due to radiation," said Kusano during one of the tour stops in France. Indeed, when they took samples in their neighborhoods to be analyzed for radioactive contamination, they were mocked not only by their neighbors but by government officials.

"We don't take this seriously in Japan," said Kurumada, who expressed relief to be among those who understand the true dangers, like Chareyron and the French anti-nuclear activists with whom they met. "In our country, it's taboo to talk about radiation and contamination."

Both Kusano and Kurumada are among those who have brought lawsuits against Tepco and the Japanese government, seeking compensation for Fukushima evacuees. Several of these have already ruled in favor of the evacuees and have assigned responsibility for the accident to Tepco and the government while providing financial awards to the plaintiffs. (Kusano's son's testimony helped win one of those cases — see our earlier coverage.)

The Japanese government pressured evacuees to return to areas contaminated by the Fukushima disaster by withdrawing their government financial assistance. However, many in areas that were not obligatory evacuation zones also left the region, given the high levels of radioactive contamination.

In addition to the visit to CRIIRAD, the mothers also spoke at public meetings in Lyon, Grenoble and Valence where CRIIRAD is located. The short news video below, in French, captures their visit to the lab. <https://youtu.be/HzfY0xIy0l8>

At the UN in Geneva, Morimatsu's testimony was postponed several days by a workforce strike. But eventually, Morimatsu (pictured with her son above the headline) was able to deliver her speech. She said: "My name is Akiko Morimatsu. I am here with other evacuees and mothers, together with Greenpeace. I evacuated from the Fukushima disaster with my two children in May 2011. Shortly after the nuclear accident, radiation contamination spread. We were repeatedly and unnecessarily exposed to unannounced radiation.

"The air, water and soil became severely contaminated. I had no choice but to drink the contaminated water, to breast-feed my baby. To enjoy health, free from radiation exposure, is a fundamental principle. The Japanese Constitution states, 'We recognize that all peoples of the world have the right to live in peace, free from fear and want.'

"However, the Japanese government has implemented almost no policies to protect its citizens. Furthermore, the government is focusing on a policy to force people to return to highly contaminated areas.

"I call on the Japanese government to immediately, fully adopt and implement the recommendations of the UN Human Rights Council. I thank UN member states for defending the rights of residents in Japan. Please help us protect people in Fukushima, and in East Japan, especially vulnerable children, from further radiation exposure."

Earlier that month, the Japanese government had responded to its Universal Periodic Review, by stating that it "supports" 145 recommendations and "notes" 72. One of those recommendations from the UN Human Rights Council, and which Japan "accepted", was the paragraph that states: "Respect the rights of persons living in the area of Fukushima, in particular of pregnant women and children, to the highest level of physical and mental health, notably by restoring the allowable dose of radiation to the 1 mSv/year limit, and by a continuing support to the evacuees and residents (Germany);"

According to Hajime Matsukubo of Citizens Nuclear Information Center in Tokyo, while the Upper House of the Japanese Diet has indicated its willingness to decrease annual radiation exposures from 20 mSv, the Japanese government has only said it would "follow up" on the specific UN recommendation and report back later. There is no timeframe for such a change, hardly surprising since it would presumably mean once more evacuating people the government has already pressured to return to contaminated areas. The practical implications of this happening leave it very much in doubt.

However, Matsukubo believes that even the commitment to follow up "is a strong tool for us to push the government forward." Aileen Mioko Smith of Kyoto-based Green Action agrees. "Now we have terrific leverage," she said. Her group, along with Greenpeace Japan will be looking to "keep the Japanese government's feet to the fire on this."

Letter from Ambassador Murata to the UN Secretary-General

Letter from Ambassador Murata to the UN Secretary-General

**The Honorable António Guterres
Secretary-General of the United Nations Organization
New York City, NY.**

Tokyo, May 26, 2018

Dear Secretary-General António Guterres,

Please allow me to draw your attention to the persistent and deepening Fukushima crisis.

It is essential not to forget the crucial fact that the state of emergency promulgated after the Fukushima accident still persists and will not be annulled hereafter for more than 100 years according to reliable experts.

It is simply abnormal not to consecrate maximum efforts to this task. The Tokyo Olympic Games 2020 should be considered as out of the question. Its preparations, however, are being promoted without hesitation.

The International Olympic Committee continues not to respond to increasing legitimate requests from various quarters to reexamine the false assertion "under control", publicly condemned as a "big lie" by Former Prime Minister Junichiro Koizumi. He is now engaged in promoting a national movement against nuclear reactors, together with Former Prime Minister Morihiro Hosokawa.

Former Prime Minister Yukio Hatoyama, in the interview article of the Japan Times of January 21, 2016, pleaded for Japan's retreat from the Tokyo Olympic Games. He has recently sent me a message in which he expressed his appreciation and expectations of women's role in this crucial problem.

In this connection, there is a growing support for the plea to make shift the current paternal civilization based on power and domination to a maternal civilization based on harmony and solidarity.

On May 16, the House of Councilors unanimously approved a law aimed at equalizing eventually the number of male and female candidates in national elections.

Women are expected to remind the world of the very lesson of the Fukushima nuclear accident that requires the shift of priority from economy to life.

The current Japanese society, exposing one scandal after another, reminds the whole world of the well-known warning of the ancient Chinese philosopher Laozi; "The Heaven's vengeance is slow but sure". It reminds us of the law of history that does not allow immorality to last long.

I wish you the best of luck in your noble and increasingly challenging mission.

Please accept, Secretary-General António Guterres, the assurances of my highest consideration.

Mitsuhei Murata

**Former Japanese Ambassador to Switzerland and Senegal
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Hitachi still negotiating with UK (Wylfa nuclear power station)

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<https://www.nucnet.org/all-the-news/2018/05/29/hitachi-agrees-to-continue-negotiations-with-uk-over-new-nuclear-at-wylfa>

Hitachi Agrees To Continue Negotiations With UK Over New Nuclear At Wylfa

Plans & Construction

29 May (NucNet): Hitachi has agreed to continue negotiations with the UK on a planned £20bn nuclear power station in Wales **after the government in London expanded financial support** to ease the Japanese group's concerns about the project's price tag.

The Tokyo-based conglomerate's board voted on 28 May 2018 to move ahead with talks.

The vote means the board has accepted the principle of a tripartite investment structure under which Hitachi, the UK government and state-backed Japanese entities would become equal investment partners

According to reports in Japan and the UK, the UK is proposing an equal equity split of about £6.5bn among Hitachi, the UK public-private consortium and a group of government-backed Japanese entities.

Negotiations are said to be continuing on the make-up of the consortiums and other financial details.

The Financial Times reported that another key factor is the strike price – the guaranteed level at which the plant sells electricity – which is still under discussion.

The newspaper said the UK government is expected to back a price about £15 a megawatt hour lower than the £92.50/MWh negotiated for the Hinkley Point C nuclear plant that is under development in the UK by EDF.

Nuclear developer Horizon is planning to build and operate two Hitachi UK Advanced-Boiling Water Reactor (ABWR) units at Wylfa Newydd on the island of Anglesey in north Wales. The company submitted its site application in April 2017.

Last year British media reported that South Korea's state-owned Korea Hydro and Nuclear Power (KHNP) was in early talks to buy a stake in the project. The reports said KHNP, a subsidiary of Korea Electric Power Corporation, could invest in Horizon as a minority shareholder along with the governments of Japan and the UK.

30-km emergency planning zones: What status?

June 2, 2018

EDITORIAL: Giving new status to 30-km zones within nuclear plants

<http://www.asahi.com/ajw/articles/AJ201806020020.html>

The 2011 Fukushima nuclear disaster provided graphic evidence of the lasting and far-reaching damage that can result when this technology goes askew.

Electric utilities that operate nuclear power plants have a duty to respond with utmost sincerity to safety concerns among local governments and communities, especially cities and towns within 30-kilometer emergency planning zones. Utilities should treat local governments within the zones, which are required to develop emergency evacuation plans under stringent new regulations introduced after the March 2011 emergency, equally as the governments in nuclear host communities.

Chugoku Electric Power Co. recently took the first step toward the start of operations of the Shimane nuclear power plant's new reactor, whose construction was halted following the Fukushima catastrophe. The utility, based in Hiroshima, asked the Shimane prefectural government and the Matsue city government to approve its application to the Nuclear Regulation Authority (NRA) for safety screening of the No. 3 reactor under the new regulatory standards.

The No. 3 reactor was close to completion when the Fukushima No. 1 nuclear power plant went in a triple meltdown. Work to install the necessary safety measures is expected to finish in the first half of 2019. This facility could become the first new nuclear reactor in Japan to start operation after the Fukushima disaster, an event that triggered tighter safety standards for nuclear plants.

The new reactor, if cleared for operation, will be in service until around 2060 under the principle that imposes a 40-year limit on the operational life of a reactor.

The reactor is part of a complex that has the distinction of being the only nuclear power plant located in the capital of a prefecture.

Within 30 km of the plant lie three other cities in Shimane as well as the cities of Sakaiminato and Yonago in neighboring Tottori Prefecture. **Some 470,000 people live in the 30-km zone.**

In 2011, authorities in Tottori Prefecture and the two cities signed an agreement with Chugoku Electric Power that commits the utility to put top priority on the safety of local residents in operating the plant. These local governments have been demanding that the utility apply the procedures for obtaining consent for reactor operations from the Shimane and Matsue governments also to the local governments in Tottori Prefecture.

In April this year, the prefectural and municipal governments in Tottori formed a joint task force to assess the safety of the new reactor with the help of the utility.

Chugoku Electric Power's move to seek the consent of only the Shimane prefectural government and the Matsue city government to start the process of bringing the reactor online has caused "considerable confusion" among the local communities in Tottori Prefecture, according to Tottori Governor Shinji Hirai. "I feel bewildered" at the way the utility is going ahead with the plan, Hirai said with obvious and justifiable discontent.

Safety agreements between nuclear plant operators and local governments generally require utilities to secure the advance consent of the local governments when new reactors are built or important changes are made to existing facilities. In most cases, however, the scope of the local governments covered is limited to the prefectures and municipalities where the plants are located.

But an agreement was reached this spring between Japan Atomic Power Co. (JAPC), the operator of the Tokai No. 2 nuclear power plant in Ibaraki Prefecture, and five surrounding municipalities that commits JAPC to seek approval from these municipalities within the 30-km zone before bringing its idled reactor back on stream. They include the city of Mito, as well as Tokai village, which hosts the nuclear plant, and the prefecture.

Some local governments around the Shimane nuclear plant are calling on Chugoku Electric Power to hold advance talks over the operation of the new reactor with all the six cities within the 30-km zone. **The utility should treat all the local governments within the emergency planning zone like host communities.** When Kyushu Electric Power Co. moved to restart the No. 3 reactor at its Genkai nuclear power plant in Saga Prefecture, four of the eight municipalities in three prefectures located within the 30-km zone were up in arms over the plan. But the procedures for the restart went ahead after the town of Genkai, which hosts the plant, and Saga Prefecture gave their consent.

Shimane Governor Zenbe Mizoguchi has indicated his intention to listen to the opinions of all the surrounding local governments, including those in Tottori Prefecture. The Shimane and Matsue governments plan to propose this approach to their respective local assemblies. **The case of the Genkai plant should serve as a cautionary tale for these local governments.**

--The Asahi Shimbun, June 2

What's to be done about tritium?



Storage tanks of contaminated water stand at Tepco's Fukushima No. 1 nuclear power plant. Tepco estimates that at the current rate it will run out of tank space in 2020, and a decision must be made on what to do with the water well before then. | BLOOMBERG

June 5, 2018

About that tritiated water: Who will decide and when?

<https://www.japantimes.co.jp/opinion/2018/06/05/commentary/japan-commentary/tritiated-water-will-decide/#.WxehPlouCos>

by Azby Brown

Virtually every news story about the Fukushima No. 1 nuclear power plant acknowledges the tremendous ongoing problem of contaminated water that is accumulating in approximately 850 large tanks on-site. There are about 850,000 tons of water in the tanks at present, from which all radionuclides of concern except tritium — radioactive hydrogen — have been effectively removed. More water accumulates each day, in quantities roughly equal to the amount of groundwater that seeps into the damaged reactor buildings. Tokyo Electric Power Company Holdings estimates that at the current rate it will run out of tank space in 2020. Something needs to be done well before then, and the decision should address the concerns of all stakeholders, public and private.

The Ministry of Economy, Trade and Industry recently announced that meetings will be held where the public can hear explanations of proposed solutions and comment on them. Unless they think seriously about how to prevent this from becoming yet another clumsy exercise in DAD — “decide, announce, defend” — these meetings will be a mere fig leaf that will allow the government to claim it has adequately consulted the public.

As it is, the government’s decision-making process itself appears to be dysfunctional, and we have reason to be skeptical that it will be possible to avert very bad domestic and international public reactions if and when this water is disposed of.

The Subcommittee on Handling Water Treated by the Polynuclide Removal Facility is one of several Japanese government committees organized by METI tasked with formulating a response to the problem of the radioactive water. The planned public sessions were announced at its eighth meeting, on May 18. This is a step in the right direction, and is long overdue. Nevertheless it may well be a case of “too little, too late.” The decision, delayed for years, will almost certainly be to dilute the water and release it to the ocean, and meanwhile, public opposition to this idea has hardened. The issue hinges on both scientific understanding and public perception.

What is tritium?

Tritium, scientifically indicated as “H3,” occurs both naturally and through man-made processes. Tritiated water (HTO), like that accumulating at the No. 1 nuclear power plant, behaves almost identically to normal water, and can be taken up easily by living organisms.

The scientific consensus is that the health risks from exposure to tritium are several orders of magnitude lower than those from radionuclides like cesium, radioactive iodine or strontium. This is reflected in allowable limits in drinking water, which are generally tens or hundreds of times higher for tritium than for these others, ranging from 100 Bq/L in the European Union to 76,103 Bq/L in Australia. Nevertheless, the scientific community acknowledges some uncertainty about these risks.

Leaving the tritiated water in the tanks at No. 1 is the riskiest thing to do, due to the possibility of ruptures or uncontrolled leaks. As far back as 2014, the International Atomic Energy Agency recommended a controlled release to the ocean as the safest course of action, and Japan’s Nuclear Regulation Agency concurred.

A Tritiated Water Task Force convened by METI in 2013 examined five options in detail, and in 2016 concluded that for reasons of cost, available technology, time required, and safety, diluting and discharging it to the ocean was the least objectionable approach. The task force presented relevant monitoring data from decades of similar releases of tritium to the ocean from nuclear facilities in Japan

and abroad, noting that the quantities from the No. 1 plant would be many times smaller and the tritium levels in ocean life too low to be of real concern.

Tepco has made it clear that ocean release is its preference as well. The company says that it strives to meet government recommendations, and does not intend to act without government support, but is ultimately responsible for any actual decision.

In July 2017 Takashi Kawamura, chairman of Tepco, said publicly that the decision to release the tritiated water had already been made, and the public outcry was immediate, particularly from Fukushima fishermen who expected to be consulted. The company quickly backpedaled.

Constructing the dilution facilities and pipelines that an ocean release would require is expected to require almost a year after any decision is made. At the current rate, that means the “go” signal must be given by early 2019 at the latest. That no decision has been officially announced to date can be ascribed to the very reasonable expectation of a strong public backlash, and, I believe, the reluctance of any responsible government officials to be associated with such an unpopular decision.

Fishermen’s opposition

The strongest and most meaningful opposition comes from Fukushima’s fisheries cooperatives, which have suffered tremendously due to the 2011 disaster. Representatives of Tepco, METI and other government bodies that share the mandate for dealing with the contaminated water invariably stress how important it is to them to reach understanding and agreement with all stakeholders, the fisheries cooperatives in particular.

Takahiro Kimoto, a general manager in Tepco’s nuclear power division, explained, “The policies can’t and shouldn’t be determined by Tepco alone, but we continue discussing the available options with government and other stakeholders. These discussions are taking a long time, but we consider them essential.” Put bluntly, Tepco knows they will be pilloried no matter what, and seeks broad support.

Shuji Okuda, METI’s director for decommissioning and contaminated water management, stressed that no decision has yet been made regarding which of the five options for dealing with the tritiated water will be chosen. “It will be a decision of the Japanese government as a whole,” Okuda explains, “not one made by any single agency. And it will be based on ample discussions with all stakeholders.”

Although Tepco and METI indicate that they are prepared to accommodate the fishermen’s conditions regarding the release, the cooperatives are adamant. “We are totally opposed to the planned release,” explained Takaaki Sawada of the Iwaki Office of the Fukushima Prefectural Federation of Fisheries Cooperative Associations, known as FS Gyoren. “It’s not a question of money or compensation,” he continued, “nor of any level of concentration we might accept as safe. We do not think it should be our responsibility to decide whether or not to release it. We think it will be impossible for the public in general to understand why tritium is considered low risk,” he continued, “and expect there will be a large new backlash against Fukushima marine products no matter how scientifically it is explained.”

Much hinges on public understanding of the risks, and therefore on transparency. Robust and effective two-way communication is essential, not to persuade the public that official plans are acceptable, but to better equip them to participate in the debate in an informed way, and to push back where they feel it is necessary. It is the public’s right to demand this kind of inclusion.

Communication should be aimed not only at fishermen and Japanese consumers, but internationally to all who are concerned about what the effect on the Pacific will be. The government has been sitting on the Task Force recommendations for almost two years without taking action. That it has taken this long to even begin planning to engage the public on this issue is, again, because no one in a governmental decision-making position wants to be politically associated with the consequences of a tritium release.

According to METI, the content, location and timing of the public sessions will be discussed at the next subcommittee meeting in July. People unable to attend in person will be able to submit comments and questions via email. Though hastily planned events could possibly be held before the end of this year, it seems likely they will need to happen in 2019, bumping up against the decision deadline.

While some fishermen are likely to attend, the cooperatives themselves will likely refuse. This situation requires the actual involvement of citizens in the decision making process, but it is difficult to find instances of that actually happening in Fukushima since the accident in 2011. At the central government level in particular, it has almost always been DAD.

Regardless of whether one trusts scientific opinion or Tepco, the tritiated water cannot be left in the tanks at No. 1 indefinitely, and releasing it to the ocean, though not without risk, is the least objectionable of the available options. As it stands now, given the depth of public mistrust and the nature of misinformation in our current era, the situation is ripe for the maximum misunderstanding and negative social impact to occur if and when this tritiated water is finally released.

Unfortunately, I think we should be prepared for things to be done the “Kasumigaseki way”: for the decision to be avoided until the last possible moment, and for government officials to claim then that an unavoidable emergency had arisen and it couldn’t be helped.

There will be negative social impact no matter what, but unless responsible government officials step up soon, own the decision and ensure that public engagement is genuine, broad, and effective, these negative impacts will be unnecessarily magnified.

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Toshiba withdraws from Texas project for economic reasons

Toshiba Confirms Withdrawal From South Texas Project New-Build

<https://www.nucnet.org/all-the-news/2018/06/01/toshiba-confirms-withdrawal-from-south-texas-project-new-build>

Plans & Construction

1 Jun (NucNet): Japan’s Toshiba Corporation is to withdraw from the project to build two of its advanced boiling water reactors (ABWRs) at the existing South Texas Project nuclear site in the US.

Toshiba America Nuclear Energy Corporation, the Japanese company’s wholly owned US subsidiary, reached an agreement in March 2008 to build the third and fourth reactors for utility NRG Energy’s South Texas Project.

But Toshiba said in a statement on 31 May 2018 that the project, which has failed to find investors, is **no longer financially viable**. Toshiba said its board had decided that Toshiba America Nuclear Energy Corporation will withdraw from the project.

“Toshiba will proceed with the necessary procedures for the withdrawal with all related parties, and target its early completion,” the statement said. It expects to complete its withdrawal by the end of this year.

In 2007, NRG Energy filed an application with the US regulator for the construction of the two new units at South Texas.

In 2011 NRG abandoned and wrote off its investment in the project, citing US regulatory uncertainty in the wake of Japan's 2011 Fukushima-Daiichi nuclear accident.

There are two 1,280 MW pressurised water reactors in commercial operation at the site.

Scrapping the Tokai plant over 70 years at taxpayers' expense

June 13, 2018

Japan approves 70-year plan to scrap nuclear reprocessing plant

<https://www.japantimes.co.jp/news/2018/06/13/national/japan-approves-70-year-plan-scrap-nuclear-reprocessing-plant/#.WyEjP4oyWos>

Kyodo

Japan's nuclear watchdog approved a plan Wednesday to scrap a nuclear fuel reprocessing plant northeast of Tokyo over a 70-year period, with the cost projected at ¥1 trillion (\$9 billion).

The facility in the village of Tokai, Ibaraki Prefecture, went into operation in 1977. It was Japan's first spent-fuel reprocessing plant built under the nation's nuclear fuel cycle policy, which aims to reprocess all spent nuclear fuel in order to reuse the extracted plutonium and uranium as reactor fuel in the resource-scarce country.

But the policy has run into a dead end as the completion of a separate fuel reprocessing plant in Aomori Prefecture, built using technological expertise developed through the Tokai plant, has been delayed by more than 20 years.

The decommissioning cost will be shouldered by taxpayers as the Japan Atomic Energy Agency, which operates the Tokai plant, is backed by the state. **Where to store the waste accumulated at the plant is undecided.** In 2014, the agency decided to decommission the plant due to its age and the huge costs of running it under stricter safety rules introduced after the 2011 Fukushima nuclear crisis.

According to the plan approved by the Nuclear Regulation Authority, **around 310 canisters of highly radioactive, vitrified waste and some 360 cubic meters of radioactive water are currently stored at the facility.**

Spending of about ¥770 billion has been estimated for the disposal of such waste and decommissioning of the facility, and roughly ¥217 billion for the 10-year preparation work.

The Tokai facility, which reprocessed a total of 1,140 tons of spent nuclear fuel, has been monitored by the International Atomic Energy Agency, as the extracted plutonium could be repurposed for other uses.

Due to the scrapping of the Tokai plant, the agency has delayed transportation of spent nuclear fuel from its Fugen prototype advanced converter reactor in Tsuruga, Fukui Prefecture, by nine years, to fiscal 2026.

The Tokai facility received some of the fuel from the Fugen reactor, which operated between 1979 and 2003, but destinations for the remaining fuel have yet to be decided. The agency has been looking to transport it overseas.

Japan's nuclear fuel recycling efforts have not paid off, with the troubled Monju prototype fast-breeder nuclear reactor set to be decommissioned over the next 30 years. The reactor in Fukui has barely operated over the past two decades despite the state investing ¥1 trillion.

TEPCO must fulfill its responsibilities to society

June 15, 2018

EDITORIAL: TEPCO needs to scrap Fukushima No. 2 as part of a new mission

<http://www.asahi.com/ajw/articles/AJ201806150026.html>

Tokyo Electric Power Co. announced June 14 that it will move to decommission the currently offline Fukushima No. 2 nuclear power plant, located near the crippled Fukushima No. 1 plant.

Since the catastrophic accident seven years ago, the local governments and assemblies have been making repeated calls on the utility to decommission the facility, along with the stricken plant.

This is the company's belated move to respond to the calls by making a decision that has long been clearly inevitable.

TEPCO's equivocal attitude toward the issue, which left the situation ambiguous for far too long, has seriously hampered efforts to rebuild disaster-hit communities. The company should carry through this complicated and costly mission of dealing with another burdensome legacy of the Fukushima disaster with a renewed and keen awareness of its responsibility for the immeasurable damage the accident has caused.

First of all, TEPCO needs to make the formal decision to decommission the reactors at the plant and quickly work out specific action plans and timetables for the project.

What is crucial is securing safety. TEPCO will have to decommission reactors at two plants simultaneously. Fukushima No. 2 was spared a serious accident as the plant was shut down properly in the 2011 earthquake-tsunami disaster.

Even decommissioning an ordinary, functioning reactor is a treacherous business that involves the tricky task of dealing with a huge amount of radioactive waste.

At the Fukushima No. 1 plant, where the process to decommission the reactors has already started, the project is facing formidable challenges since it is still impossible to grasp the accurate situation within the reactors that have suffered meltdowns.

Many local residents are deeply concerned about whether the decades-long process of decommissioning the reactors can be safely executed.

TEPCO must make every possible effort to ensure that the work will be done safely.

Residents of areas around the Fukushima No. 1 plant were forced to live away from their homes as evacuees for long periods.

There are still many areas where the total destruction of infrastructure has made it almost impossible for local residents to return home.

TEPCO should also make an active contribution to rebuilding such areas by, for example, employing workers for its decommissioning projects and cooperating with the renewable energy projects the Fukushima prefectural government is promoting.

The dismantling of the Fukushima No. 2 plant will remove from service all the 10 reactors that used to operate in the prefecture before the disaster and leave the Tokyo-based electric utility with less than half the reactors it once had.

This prospect should prompt TEPCO to rethink its management strategy, which has been heavily dependent on nuclear power generation.

The utility, which is now effectively under state control, is under strong pressure to sharply increase its profits to cover the huge costs of dealing with the consequences of the accident.

To lift its bottom line, the firm is seeking to restart reactor operations at its Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture and complete the ongoing construction of a new nuclear plant in Higashidori, Aomori Prefecture. But the outlook of both projects remains uncertain.

Since the Fukushima nuclear disaster, the Japanese public has become markedly wary of nuclear power generation in general. To make matters worse for TEPCO, the costs of required safety measures have surged.

The utility should ask itself whether it would really be proper to continue devoting massive management resources to nuclear power generation.

Outside Japan, many energy companies are racing to make investments and conduct research and development projects in new business areas, particularly those related to renewable energy. Because of declining costs and a spurt of technological innovation, renewable power generation is widely seen as a new, promising growth area.

As a special business entity that has been kept alive with taxpayer money since the devastating accident, TEPCO should think afresh what is the best way to fulfill its responsibilities to society.

Editorial: TEPCO should quickly decommission Fukushima No. 2 nuclear plant

<https://mainichi.jp/english/articles/20180615/p2a/00m/0na/026000c>

Tokyo Electric Power Co. (TEPCO) has finally announced that it will decommission its Fukushima No. 2 Nuclear Power Plant, more than seven years after the outbreak of the ongoing crisis at its tsunami-ravaged Fukushima No. 1 plant. If realized, all 10 nuclear reactors in Fukushima Prefecture would be dismantled.

- **【Related】** TEPCO staffer testifies execs put off tsunami measures at Fukushima plant
- **【Related】** TEPCO refused in 2002 to calculate possible tsunami hitting Fukushima: ex-gov't official
- **【Fukushima & Nuclear Power】**

The presence of the No. 2 power station has offended Fukushima Prefecture residents, many of whom are still living as evacuees, and others who have suffered groundless rumors about radiation contamination. TEPCO needs to swiftly draw up a road map that will enable smooth decommissioning of the complex. Like the No. 1 plant, the No. 2 complex was also hit by tsunami generated by the March 2011 Great East Japan Earthquake. However, some of its external power sources remained intact, averting meltdowns at the plant.

The No. 2 plant remains offline, but a massive amount of nuclear fuel remains in the complex. Since prefectural residents have deeply rooted concerns about the plant's safety and its possible reactivation in

the future, the prefectural government has urged TEPCO and the national government, which effectively has the largest stake in the utility, to decommission the plant at an early date. Reactivation of a nuclear plant requires consent from the local municipalities hosting the complex. Therefore, the resumption of operations at the No. 2 power station has always been a politically unfeasible option. Moreover, more than 30 years have passed since operation of its four reactors began. To operate the reactors beyond the 40-year limit set under new rules introduced after the outbreak of the nuclear crisis, it is necessary to invest a vast amount of money for additional safety measures. That means there were no merits to keeping the power station open in terms of the utility's finances. Nevertheless, TEPCO had delayed the decision to decommission the complex. Once a utility decides to decommission a nuclear reactor, the operator cannot regard the facility or the nuclear fuel inside it as part of the company's assets, weakening its financial base. It appears TEPCO may have waited to make the decision until the company had restored its financial strength. However, even considering the financial strain that TEPCO experienced after the March 2011 disaster, it deserves criticism for its lack of sincerity, failing to provide a sufficient explanation to the public about its plans for the reactors. TEPCO President Tomoaki Kobayakawa, who notified Fukushima Gov. Masao Uchibori of the decision, has admitted that the No. 2 plant "has hindered disaster recovery." If so, the utility should promptly begin preparations to decommission the complex. The power company already faces the extremely difficult task of decommissioning the Fukushima No. 1 nuclear plant. In order to smoothly carry out the decommissioning of the No. 2 plant as well, the company must exercise wisdom in allocating its management resources, such as funds and personnel. We hope TEPCO will cooperate with the government in swiftly materializing its plan for decommissioning the No. 2 power station. The decommissioning of the Fukushima No. 2 plant would leave the Kashiwazaki-Kariwa Nuclear Power Plant in Niigata Prefecture as TEPCO's sole atomic power station. This means that TEPCO may step up its efforts to persuade the local municipalities hosting that power plant to accept its reactivation. However, the company must keep in mind that the main priority is to ensure safety at the plant and to obtain the understanding and acceptance of local communities.

June 15, 2018

TEPCO told to hear local views for scrapping plant

https://www3.nhk.or.jp/nhkworld/en/news/20180615_22/

Japan's economy and industry minister has told Tokyo Electric Power Company to take local opinion into account when drawing up a plan to scrap another nuclear power plant in Fukushima Prefecture.

Hiroshige Seko gave the instruction to TEPCO President Tomoaki Kobayakawa on Friday.

The move came one day after Kobayakawa informed the Fukushima prefectural governor of TEPCO's intention to decommission the Fukushima Daini nuclear power plant.

The plant has been offline since the March 2011 earthquake and tsunami that caused meltdowns at the

Fukushima Daiichi plant, also in the prefecture.

Seko said he appreciates that the utility accepted the current situation in the prefecture.

He told TEPCO to communicate with the local community to create a decommissioning plan from the standpoint of contributing to post-disaster reconstruction.

Kobayakawa told reporters after the meeting that his company will proceed with drafting the plan while trying to ensure that people in Fukushima can feel safe and contribute to reconstruction efforts.

He said details of the plan will be decided by taking into account the timetable and workforce allocation for scraping reactors of Fukushima Daiichi.

Scaling down ASTRID project: What does this mean for Japan?

June 18, 2018

EDITORIAL: Japan should disconnect from fast-breeder reactor project

<http://www.asahi.com/ajw/articles/AJ201806180025.html>

France has decided to sharply scale down its ASTRID fast-reactor project, which is supported by Japan.

France's decision underscores afresh the dismal outlook of Japan's plan to continue the development of fast-reactor technology by relying on an overseas project.

Now that it has become unclear whether participation in the ASTRID project will pay off in future benefits that justify the huge investment required, Japan should pull out of the French undertaking.

Fast reactors are a special type of nuclear reactors that burn plutonium as fuel. The ASTRID is a demonstration reactor, the stage in reactor technology development just before practical use.

The French government has said the Advanced Sodium Technological Reactor for Industrial Demonstration, if it comes on stream, will generate 100 to 200 megawatts of electricity instead of 600 megawatts as originally planned. Paris will decide in 2024 whether the reactor will actually be built.

Japan has been seeking to establish a nuclear fuel recycling system, in which spent nuclear fuel from reactors will be reprocessed to extract plutonium, which will then be burned mainly in fast reactors.

When the Japanese government in 2016 pulled the plug on the troubled Monju prototype fast-breeder reactor, which was at the technology stage prior to that of a demonstration reactor, it decided to make the joint development of the ASTRID the centerpiece of its plan to continue the nuclear fuel recycling program.

The government will provide some 5 billion yen (\$45.2 million) annually for the French project through the next fiscal year, which starts in April, and decide, by the end of this year, whether and how it will be involved in the project after that.

Because of significant differences in the roles of prototype and demonstration reactors, a simple comparison between the Monju and the ASTRID can be misleading.

But it is clearly doubtful whether the ASTRID, which will be smaller than the Monju, will offer sufficient benefits for Japan's fuel recycling program.

If it fully commits itself to the joint development of the ASTRID in response to France's request, Japan will have to shoulder half the construction cost, estimated to be hundreds of billions to 1 trillion yen, and assign many engineers to the project. But these resources could end up being wasted.

Over the years, the government spent more than 1.1 trillion yen of taxpayer money on the Monju, designed to be a small-scale example of the potential of the fast-breeder reactor technology. But the prototype reactor remained out of operation for most of the two decades after it became operational. It actually accomplished only a small fraction of what it was designed to achieve.

The government should make an early decision to end its involvement in the ASTRID to avoid repeating the mistake it made with the Monju project, which was kept alive at massive cost for far too long as the decision to terminate it was delayed for years without good reason.

The government has only itself to blame for the current situation. Despite deciding to decommission the Monju, it stuck to the old fuel cycle policy without conducting an effective postmortem on the Monju debacle. Instead, the government too readily embraced the ASTRID project as a stopgap to keep its fast-reactor dream alive.

The government needs to rigorously assess whether it is wise to continue developing fast-reactor technology.

Producing electricity with a fast reactor is costlier than power generation with a conventional reactor that uses uranium as fuel. The United States, Britain and Germany phased out their own fast-reactor projects long ago.

France has continued developing the technology, but feels no urgent need to achieve the goal. The country predicts that the technology will be put to practical use around 2080 if it ever is.

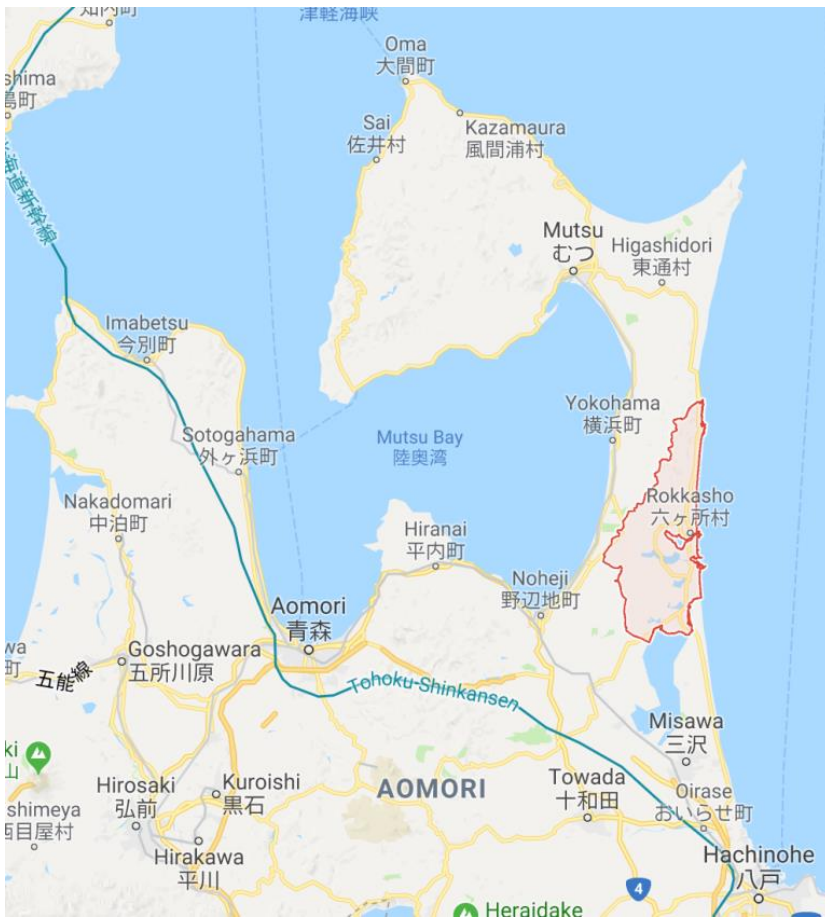
Even if Japan wants to continue developing fast-reactor technology, it would be extremely difficult to build a demonstration reactor for the project within the country given that even finding a site to build an ordinary reactor is now virtually impossible.

The government would be utterly irresponsible if it aimlessly keeps pouring huge amounts of money into the project when there is no realistic possibility of the technology reaching the stage of practical application.

If it abandons the plan to develop fast-reactor technology, the government will have to rethink the entire nuclear fuel recycling program.

Any such fundamental change of the nuclear power policy would have serious implications. But there is no justification for postponing the decision any further.

Mayor election in Rokkasho & nuclear risk



June 10, 2018

Mayor election in Rokkasho Village, Aomori Prefecture, Japan: A small village where world nuclear risk is at stake.

<https://fukushima311voices.com/2018/06/10/mayor-election-in-rokkasho-village-aomori-prefecture-japan-a-small-village-where-world-nuclear-risk-is-at-stake/>

Don't let the Rokkasho nuclear fuel reprocessing plant start!

The Rokkasho village mayor election takes place on June 24, 2018.

We are calling for people to send encouraging comments for Ms Junko ENDO, anti-nuclear fuel cycle candidate!

For FB users, please write messages in the Facebook page of the candidate Ms Junko ENDO's political group "Rokkasho Mura ni atarashii kaze wo okosu kai" (Group to raise a new wind in Rokkasho Village) The Facebook page is in Japanese, but you are most welcome to post your comments in your mother language. In fact, they prefer different foreign languages so that they can show that support is arriving from all over the world!

Text below is partly based on an original text of Kiyohiko YAMADA with additions by Kurumi Sugita and Jon Gomon.

A brief historical and geographical reminder

There is a nuclear fuel cycle center in Rokkasho village, located at the root of Shimokita Peninsula in Aomori Prefecture, situated in the northernmost part of the main island of Japan.

<image: clip_image002.png>

<image: clip_image003.png>

On April 9, 1985, the governor of Aomori Prefecture decided to accept the center, composed of three facilities:

- a uranium enrichment (note 1) plant,
- a fuel reprocessing plant,
- and a low-level radioactive waste repository.

Afterwards, two facilities have been added:

- a temporary storage facility of high-level radioactive waste returned from overseas after reprocessing,
- and a MOX (note 2) fabrication plant.

Who is operating the nuclear fuel center?

This nuclear fuel cycle center of Rokkasho village is operated by Japan Nuclear Fuel Limited (JNFL), notorious for its incompetent management to say the least. In October 2017, Japanese Nuclear Regulation Authority (NRA) reported that JNFL violated safety measures. See a Mainichi Shimbun article below: Unfinished nuclear fuel reprocessing plant faked safety records: NRA (Mainichi Shimbun, October 11, 2017)

" The NRA concluded on Oct. 11 that Japan Nuclear Fuel Ltd. (JNFL) has violated safety measures after it was learned that the firm failed to carry out the required checks and nevertheless continued to write down "no abnormalities" in safety check records. There has been a spate of incidents such as the flow of rainwater into facility buildings at the plant in the Aomori Prefecture village of Rokkasho.

The plant, which is scheduled to reprocess spent nuclear fuel, was on the verge of hosting a final-stage NRA safety inspection, but the checkup is likely to be postponed considerably as JNFL now has to prioritize in-house inspections of all facilities at the plant. "

Major problems of the Rokkasho reprocessing plant

The Japanese nuclear fuel cycle collapsed with the fast breeder reactor "Monju"

The Japanese government persisted to continue research and development on the fast breeder reactors, even though they had been abandoned elsewhere in the world. It was in December 2016 that the government decided to finally decommission the prototype reactor "Monju".

The government is still trying to start the operation of the Rokkasho reprocessing plant in the first half of 2021 fiscal year, even though the prospect of the fast breeder reactor's commercialization has become improbable. There is a contradiction here. Why start a reprocessing plant when there is no usage plan for the end product (see below as for Mox fuel usage)? One possible reason is that for quite a while former Liberal Democratic Party (LDP) ministers have been hinting at the possibility to possess nuclear weapons. They may want to have a plutonium extraction plant which can produce eight tons of plutonium annually.

Surplus Plutonium problem

The Japanese government has ordered the power companies to reprocess the total amount of used nuclear fuel resulting from nuclear power plants' operation. When there was no reprocessing plant in Japan, the reprocessing was entrusted to the UK and France. After that, a national reprocessing plant was built in Tokai village in Ibaraki prefecture, and then the construction of the private reprocessing plant in Rokkasho village in Aomori Prefecture was started in 1993.

The total amount of plutonium remaining in these reprocessing plants is about 48 tons. Since the commercialization of the fast breeder reactor has become improbable, the government wants to use the plutonium as MOX fuel at nuclear power plants (called plu-thermal in Japan).

However, since the TEPCO Fukushima Daiichi nuclear accident of March 11, 2011, the plu-thermal project is not progressing and it has become difficult to use up the surplus plutonium. If the Rokkasho reprocessing plant is put in operation, it will create a surplus of eight tons of plutonium annually. The possession of such an amount of plutonium will most certainly increase tensions in Asia.

Risks involved in the Rokkasho plant

① The reprocessing plant is on a fault

Japan is riddled with geological faults, and there is no stable stratum. The Rokkasho reprocessing plant is not on a stable stratum at all. A big active fault of about 100 km lies in the Pacific Ocean side. Scientists warn that in case of a big earthquake, a magnitude 8 tremor could seriously damage the reprocessing plant.

The operating company insists that a big earthquake will not occur in Rokkasho, but their seismograph is installed on bedrock, and is set so that it does not indicate more than a seismic intensity 3. Why? It is because when seismic intensity higher than 3 is detected, it is necessary to make a total inspection of the reprocessing plant.

② Hakkoda and Towada volcanoes are nearby

Recently, Hakkoda Mountain and Lake Towada, major tourist destinations in Aomori Prefecture not far

from the plant, came to be monitored as a possible origin of a volcano-related catastrophe. With a volcanic eruption, cinders and volcanic ash can fall thick in the vicinity of the reprocessing plant. This may make it difficult to secure external power supplies, to drive emergency power vehicles, and/or to secure cooling water. In addition, if the small volcanic ash can clog filters and destroy equipment.

③ Fighter jets fly near Rokkasho

Within 30km of the Rokkasho reprocessing plant, there is Misawa Airbase used by the US Air Force and Japanese Air Self Defense Force. There is also the Amagamori bombing exercise ground within 10km. Fighter jets exercising in Amagamori fly over the Ogawara port, passing through the vicinity of the reprocessing plant to repeat the training.

There is no doubt that a major disaster will occur if a fighter plane crashes into the reprocessing plant. Considering that the reprocessing plant is planned to go into operation in the coming years, it is very unlikely that the US Misawa Airbase and exercise ground would be relocated before the reprocessing operation begins.

Possibility of a serious accident

In the reprocessing project application submitted by JNFL, the following list cites as possible serious accidents:

- ① criticality in the dissolution tank,
- ② criticality by a transfer error of the solution containing plutonium,
- ③ evaporation to dryness by the loss of the cooling function,
- ④ explosion caused by hydrogen generated by radiolysis,
- ⑤ an organic solvent fire in a cell of the plutonium refining facility,
- ⑥ the damage to the used fuel aggregates in the fuel storage pool,
- ⑦ leakage from piping of liquid high-level radioactive waste storage facilities to cells.

If any of these major accidents occur simultaneously, or if the accident is triggered by a crash of a fighter plane or a volcanic eruption, the scale of the accident would be more than prepared for. However, the range of nuclear disaster prevention of the reprocessing plant is limited to a radius of 5 km only.

Existing radiation exposure of the entire Aomori prefecture and of the Pacific Ocean is already too high

After the Fukushima Daiichi nuclear accident, many tanks were created on the site of the Fukushima nuclear power plant to store the tritium contaminated water after processing the radioactive water by the multi-nuclide removal facility (Advanced Liquid Processing System = ALPS). In Fukushima prefecture, tritium contaminated water is not discharged in the ocean because of the opposition of fishermen, while in Rokkasho the same tritium water was released in a large amount during the active testing. Fishermen in Iwate once required that the reprocessing plant drainage be discharged in Mutsu Bay and not in the Pacific Ocean. The person in charge in Aomori Prefecture refused, saying, "Mutsu Bay would die".

Because of all these risks which involve not only Rokkasho village or Aomori Prefecture but the whole world, we need the village mayor who says NO! to Rokkasho Nuclear Fuel Center. **Please write either in a FB page or leave your comment at the bottom of this blog article page which we will transfer.**

Reminder:

For FB users, please write messages in the Facebook page of the candidate Ms Junko ENDO's political group "Rokkasho Mura ni atarashii kaze wo okosu kai" (Group to raise a new wind in Rokkasho Village) The Facebook page is in Japanese, but **you are most welcome to post your comments in your mother language**. In fact, they prefer different foreign languages so that they can show that support is arriving from all over the world!

Profile and manifesto of the candidate Ms Junko ENDO in English coming up soon

Profit comes first

June 20, 2018

Hitachi CEO promises to prioritize profitability in U.K. nuclear power plant project

<https://www.japantimes.co.jp/news/2018/06/20/business/corporate-business/hitachi-ceo-promises-prioritize-profitability-u-k-nuclear-power-plant-project/#.Wyo1jYoyWos>

JJI

Hitachi Ltd. will put profitability first in a nuclear plant construction project in the United Kingdom, President and CEO Toshiaki Higashihara told shareholders Wednesday.

The machinery-maker will base any decision about the project on economic rationale and take the concerns of its shareholders into account, Higashihara said. The project is expected to cost some ¥3 trillion.

Hitachi officials told the shareholders that the company will reduce risk connected to its wholly owned British nuclear unit by reducing its stake in the subsidiary to less than 50 percent through the solicitation of outside investment.

They also said the company plans to aim for further growth by expanding businesses abroad, including railway operations.

Hitachi shareholders approved the appointments of 12 board members, including Higashihara and Chairman Hiroaki Nakanishi.

Nakanishi recently became the first Hitachi executive to assume the post of chairman at Keidanren, Japan's largest business lobby.

Taxing even offline reactors

June 22, 2018

Prefectures taxing nuclear plants until the bitter end

<http://www.asahi.com/ajw/articles/AJ201806220038.html>

THE ASAHI SHIMBUN

Local governments lost a lucrative source of tax revenue when nuclear reactor operations were suspended in 2011, but they have found other ways to collect funds, even on idle reactors that will be decommissioned.

All 12 prefectures that host nuclear plants have passed ordinances by June that allow them to tax offline reactors.

One exception is Fukushima Prefecture, which decided to do away with all forms of local taxation on nuclear plants considering the special circumstances facing reactors in the prefecture following the March 2011 accident at the Fukushima No. 1 nuclear power plant.

The disaster led to the temporary suspension of operations at all 54 commercial nuclear reactors in Japan. With the reactors idle, the local governments lost revenue from taxes imposed on nuclear fuel brought in for the reactor operations.

Seven years after the triple meltdown at the Fukushima plant, only nine reactors have resumed operations, and utilities have decided to decommission 19 reactors.

In addition to the tax on offline reactors, four prefectures have passed ordinances that allow for taxation of reactors that are being decommissioned. An estimated 1.1 billion yen (\$10 million) in annual revenues is expected from such taxes on decommissioned reactors.

Such taxes could spread because more electric power companies plan to mothball reactors that have not only aged but also require costly upgrades required under stricter safety regulations in place since the Fukushima accident.

Since 1974, local governments that host nuclear plants have received tax grants and subsidies from the central government.

In 1976, Fukui Prefecture became the first local government to pass an ordinance for a local tax on nuclear plants, specifically on the nuclear fuel brought into a nuclear reactor. The tax revenues were to be used ostensibly for safety measures and to promote economic development.

In fiscal 2010, 13 prefectural governments, including Fukushima, collected a total of about 22 billion yen in revenues from the tax on nuclear fuel.

However, after the Fukushima accident led to the temporary shutdowns of all reactors in Japan, the Fukui prefectural government in November 2011 came up with a new tax plan to collect revenues from reactors that were not in operation.

The electricity generating capacity of the reactor was used as the standard for calculating the new tax. The tax plan spread to 12 prefectures. Miyagi Prefecture was the last, and it started taxing the Onagawa nuclear based on its capacity in June.

The prefectural governments are expected to collect a total of about 15 billion yen annually from this tax. Fukui Prefecture, which hosts the largest number of reactors in Japan, again served as a pioneer among local governments with its move to tax the increasing number of reactors that face decommissioning. The tax rate was half that for the power capacity tax previously in place, and the prefectures of Saga, Shimane and Ehime are now taxing reactors being decommissioned.

Electric power companies that operate the nuclear plants pay the local taxes on their reactors from electric bills charged to customers.

To impose such taxes, the local governments must consult with the electric power companies before obtaining the approval of the Ministry of Internal Affairs and Communications.

The process has been criticized because it does not give a voice to those who either benefit or shoulder a financial burden from the additional tax.

(This article was written by Norihiko Kuwabara and Takufumi Yoshida.)

Exploiting disaster for tourism

June 25, 2018

As Fukushima residents return, some see hope in nuclear tourism

<https://www.japantimes.co.jp/news/2018/06/25/national/fukushima-residents-return-see-hope-nuclear-tourism/#.WzDLzYoyWos>

by Tim Kelly

Reuters

FUKUSHIMA – On a cold day in February, Takuto Okamoto guided his first tour group to a panorama few outsiders have witnessed in person: construction cranes looming over Tokyo Electric Power Company Holdings Inc.'s Fukushima No. 1 nuclear plant.

Seven years after deadly tsunami ripped through the plant in Fukushima Prefecture, and as residents who fled the nuclear catastrophe trickle back, Okamoto and other tour organizers are bringing curious sightseers to the region.

Many returnees hope tourism will help resuscitate their towns and ease radiation fears. But some worry about drawing a line under a disaster whose impact will be felt far into the future. The cleanup, including the removal of melted uranium fuel, may take four decades and cost several billion dollars each year.

"The disaster happened and the issue now is how people rebuild their lives," Okamoto said after his group stopped in Tomioka, 10 kilometers (6.21 miles) south of the nuclear plant. He currently runs tours just twice a month, but he wants to bring groups twice a week.

As Okamoto's passengers peered out tour bus windows at the cranes poking above the nuclear plant, electronic signs on the highway to Tomioka showed radiation at around 100 times normal background levels.

"For me it's more for bragging rights, to be perfectly honest," said Louie Ching, 33, a Filipino programmer. Ching, two other Filipinos and a Japanese man who visited Chernobyl last year each paid ¥23,000 (\$208.75) for a day trip from Tokyo.

The group had earlier wandered around Namie, a town 4 kilometers north of the plant to which residents began returning last year after authorities lifted restrictions. So far, only about 700 of 21,000 people have returned — a ratio similar to that of other ghost towns near the nuclear site.

Former residents Mitsuru Watanabe, 80, and his wife Rumeko, 79, have no plans to come home. They were only in town to clear out their shuttered restaurant before it is demolished, but they chatted with tourists while they worked.

"We used to pull in around ¥100 million a year," Mitsuru said as he invited the tourists inside. A 2011 calendar hung on the wall, and unfilled orders from the evacuation day remained on a whiteboard in the kitchen.

"We want people to come. They can go home and tell other people about us," Mitsuru said among the dusty tables.

Okamoto's group later visited the nearby coastline, where the tsunami killed hundreds of people.

Abandoned rice paddies, a few derelict houses that withstood the waves and the gutted Ukedo Elementary School are all that remain.

It's here, behind a new sea wall at the edge of the restricted radiation zone, that Fukushima Prefecture plans to build a memorial park and 5,200-square-meter (56,000-square-foot) archive center, complete with video displays and exhibits about the quake, tsunami and nuclear calamity.

"It will be a starting point for visitors," Kazuhiro Ono, the prefecture's deputy director for tourism, said of the center.

The Japan Tourism Agency will fund the project, Ono added. Ono wants tourists to come to Fukushima — particularly foreigners, who have so far steered clear. Overseas visitors spent more than 70 million days in Japan last year, triple the number in 2011. About 94,000 of those were in Fukushima.

Tepco will provide material for the archive, although the final budget for the project has yet to be finalized, he said.

"Some people have suggested a barbecue area or a promenade," said Hidezo Sato, a former seed merchant in Namie who leads a residents' group. A "1" sticker on the radiation meter around his neck identified him as being the first to return to the town.

"If people come to brag about getting close to the plant, that can't be helped, but at least they'll come," Sato said. The archive will help ease radiation fears, he added.

Standing outside a farmhouse as workmen continued its refurbishment, so her family could return, Mayumi Matsumoto, 54, said she was uneasy about the park and archive.

"We haven't gotten to the bottom of what happened at the plant, and now is not the time," she said.

Matsumoto had come back for a day to host a rice-planting event for about 40 university students. Later they toured Namie on two buses, including a stop at scaffolding near the planned memorial park site to view the cranes at the nuclear plant.

Matsumoto described her feelings toward Tepco as "complicated," because it is responsible for the disaster but also helped her family cope its aftermath. One of her sons works for the utility and has faced abuse from angry locals, she added.

"It's good that people want to come to Namie, but not if they just want to get close to the nuclear plant. I don't want it to become a spectacle," Matsumoto said.

Okamoto is not the only guide offering tours in the area, although visits of any kind remain rare. He said he hoped his clients would come away with more than a few photographs.

"If people can see for themselves the damage caused by tsunami and nuclear plant, they will understand that we need to stop it from happening again," said Okamoto, who attended university in a neighboring prefecture. "So far, we haven't come across any opposition from the local people."

See also :

June 21, 2018

As Fukushima residents return, some see hope in nuclear tourism

<http://www.asahi.com/ajw/articles/AJ201806210027.html>

Decontamination in Fukushima "all done"

June 24, 2018

Japan touts completion of Fukushima cleanup at tripartite environment meeting in China

<https://www.japantimes.co.jp/news/2018/06/24/national/japan-touts-completion-fukushima-cleanup-tripartite-environment-meeting-china/#.WzDM4IoyWot>

Kyodo

SUZHOU – Environment Minister Masaharu Nakagawa told his counterparts from China and South Korea on Sunday that radioactive decontamination work following the 2011 Fukushima nuclear disaster is “all done” except for so-called difficult-to-return-to zones.

At the 20th Tripartite Environment Ministers’ Meeting held in Suzhou, in eastern China, Nakagawa also used the opportunity to again request the lifting of food import restrictions from prefectures hit by the Fukushima disaster.

Beijing has banned food imports from 10 prefectures surrounding the Fukushima No. 1 nuclear power plant, while Seoul has blocked Japanese seafood imports from eight prefectures.

Nakagawa explained to Chinese Ecology and Environment Minister Li Ganjie and South Korean Environment Minister Kim Eun-kyung that Japan has strict food safety standards in place that exceed international requirements. “Environmental regeneration in Fukushima is progressing steadily,” he said. The three ministers also agreed on a policy to discuss the problem of plastic microparticles and their effect on marine pollution at a Group of 20 ministerial meeting on energy transitions and the global environment for sustainable growth in Karuizawa, Nagano Prefecture, next June.

In addition, they adopted a joint statement including a pledge to promote information sharing on the problem of venomous fire ants, which have over the past year repeatedly been brought to Japan in containers shipped from China.

The ministers also decided to hold next year’s tripartite meeting in Japan. It has been held annually in rotation among the three countries since 1999

Nuclear future: Some will never learn

June 28, 2018

Utilities reaffirm faith in nuclear power despite safety concerns

<http://www.asahi.com/ajw/articles/AJ201806280047.html>

THE ASAHI SHIMBUN

Nine power companies said they are eager to restart their nuclear plants at their shareholder meetings on June 27, shunning calls to move toward renewables despite skepticism about the safety of relying on nuclear energy.

At the Kansai Electric Power Co. meeting, major shareholders such as the Kyoto and Osaka city governments called for nuclear power plants to be decommissioned.

“Kansai Electric should stop relying on nuclear power as soon as possible,” said Kyoto Mayor Daisaku Kadokawa.

In reply, Shigeki Iwane, president of Kansai Electric, said, “While giving top priority to the safety of nuclear plants, we intend to continue utilizing nuclear plants.”

He did not rule out the possibility of constructing new reactors.

Kyushu Electric Power Co., which is now operating four reactors, showed reluctance about a major shift to renewables.

A proposal to “significantly bolster” renewable energy was turned down at its shareholder meeting.

“We cannot ensure the stability of frequency if we accept solar power more than at the current level,” said Michiaki Uriu, president of Kyushu Electric, noting the output of solar energy generated within the utility’s jurisdiction has reached the ceiling of 8.17 gigawatts.

At the Tokyo Electric Power Company Holdings Inc. meeting, a proposal was made to freeze preparatory work toward the planned resumption of its Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture.

“Why does TEPCO bother to pursue nuclear power generation despite the Fukushima nuclear disaster?” said one shareholder. However, the proposal was rejected.

“The nuclear plant will continue to play an important role,” said Tomoaki Kobayakawa, president of TEPCO Holdings, referring to the Kashiwazaki-Kariwa plant, one of the largest in the world. “We will strive toward the restart by soul-searching and taking a lesson from the unprecedented accident.”

Some shareholders hailed the company’s decision to decommission the Fukushima No. 2 nuclear plant, announced by Kobayakawa, although they said the decision came belatedly.

But others voiced their regret over the decision, saying the plant is too good to be decommissioned.

The Fukushima No. 2 nuclear plant was damaged in the 2011 Great East Japan Earthquake and tsunami, but it managed to avert a meltdown, unlike the Fukushima No. 1 nuclear power plant nearby, where a triple meltdown occurred.

Another shareholder proposal concerned an end to providing financial support to Japan Atomic Power Co., which intends to resume operations at the Tokai No. 2 nuclear plant in Ibaraki Prefecture.

The same proposal was also made and rejected at a shareholder meeting of Tohoku Electric Power Co. the same day. Both TEPCO Holdings and Tohoku Electric fund Japan Atomic Power.

“We have offered debt guarantee to Japan Atomic Power due to the company’s efforts to ensure sustainability and cut fuel costs by restarting the nuclear plant,” said Jiro Masuko, vice president of Tohoku Electric.

All of Japan’s active nuclear power plants were shut down as part of precautionary measures after the 3/11 Fukushima disaster. Since then, nine have been restarted, and further 26 that remain idle could potentially be restarted.

Clean energy for Japan

June 25, 2018

Japanese firms shift to clean energy despite state’s enduring commitment to nuclear power

<https://www.japantimes.co.jp/news/2018/06/25/business/japanese-firms-shift-clean-energy-despite-states-enduring-commitment-nuclear-power/#.WzDNqIoyWos>

by Hidetoshi Takada

Kyodo

As Japan’s government clings to nuclear power even after the Fukushima crisis, the private sector is moving ahead with greater use of renewables to power their operations amid growing international awareness of climate change.

As Japan's government clings to nuclear power even after the Fukushima crisis, the private sector is moving ahead with greater use of renewables to power their operations amid growing international awareness of climate change.

For instance, in March Daiwa House Industries Co. became a member of both RE100 (Renewable Electricity) and EP100 (Energy Productivity), two global initiatives by the Climate Group.

RE100 is a global, collaborative initiative of influential businesses committed to using 100 percent renewable electricity, while EP100 brings together companies committed to doubling energy productivity to lower greenhouse gas emissions. Among RE100's 136 members are U.S. General Motors Co. and Dutch consumer goods giant Unilever.

Printer-maker Ricoh Co., the first Japanese firm to join RE100, was followed by five firms such as online stationery retailer Askul Corp. and retail giant Aeon Co., aiming to meet the electricity needs of their global operations with renewable energy between 2030 and 2050.

Daiwa House says it is the world's first company in the construction and housing sectors to join both campaigns and the first to declare it is taking bold action, as part of EP100, among Japanese firms.

Currently, there are 15 EP members. Daiwa aims to achieve both goals by 2040.

Katsuhiro Koyama, general manager of Daiwa's environment department, spurred debate over achieving the targets after returning to Japan from the COP23 global climate round in Germany last November.

He had previously taken a cynical view of such tech giants as Apple Inc., Google Inc. and Microsoft Corp. participating in the RE100 clean energy initiative, seeing it as an "atonement for their sins" for consuming huge amounts of electricity.

But as one of the Japanese delegate members to the global conference, Koyama said he was "inspired" by the firms' "serious aspirations to leverage clean energy producers" after hearing various discussions.

The Osaka-based Daiwa group has invested an estimated ¥46.6 billion in the construction of its own solar, hydro and wind-power plants nationwide since 2007, producing power equivalent to about 60 percent of the group's annual use of 481 million kilowatt hours. Meanwhile, it doubled its electricity use efficiency in fiscal 2016 compared to fiscal 2005.

Japanese businesses became much more aware of renewable energy in the wake of the Hokkaido Toyako summit in 2008, in which the Group of Eight countries set a long-term target to reduce greenhouse gas emissions. The 2011 Great East Japan Earthquake, which triggered the suspension of all nuclear power plants, also sparked public concerns over the country's energy mix.

The ratio of renewable energy to the nation's entire power output capacity has risen from 10 percent in fiscal 2010 to 15 percent in fiscal 2016, according to the Agency for Natural Resources and Energy, boosted by a feed-in tariff system that obliges utilities to buy electricity generated by renewable energy at fixed prices. The scheme has attracted businesses large and small — even individuals — to pour money into the field of photovoltaics as they requires less effort to install and operate in a shorter period of time compared to other types of energy sources, said Yushi Inoue, a research director at think tank Mitsubishi Research Institute.

Individual power producers are actively trying to connect with grids in northeastern Japan, and in a recent offering sought to supply "more than three times what we can accept," according to a spokesman of Tohoku-Electric Power Co., the regional utility.

The region, part of which was devastated by the mega-quake seven years ago and the subsequent nuclear disaster, has a number of favorable locations for wind power plants.

Meanwhile, a similar scheme in Europe that utilizes renewable energy certificates and a guaranteed origin of electricity generated from such sources has gained momentum among environmentally conscious firms, particularly after the 2008 summit in Hokkaido. The tradable green certificate proves

“environmental added value” created by renewable energy producers, and can be purchased by electricity users.

Despite the financial burden, Ajinomoto Co. switched its energy source to renewables for its entire annual electricity use of 4.5 million kilowatt hours at its Tokyo headquarters and major sales bases at home in the business year to March 2018.

Japan’s major seasoning- and food-maker extended the move to its four group arms in April, aiming to boost its renewable energy use to 50 percent of the group’s total energy consumption by fiscal 2030. The targeted figure is part of various nonfinancial targets compiled for the first time in its three-year business management plan that started in fiscal 2017, said Mototsugu Shiratsuchi, general manager of the environment management support group of Ajinomoto.

Although the volume of certified renewable energy is fairly small relative to the entire clean energy output in Japan, it has been steadily rising — reaching 378 million kilowatt hours in the year to March 2018, according to the Japan Quality Assurance Organization, the accreditation body.

Japan Natural Energy Co., the leading certificate issuer, has over 150 firms as long-term clients, such as Sony Corp., Asahi Breweries and about 300 customers on a one-time contract basis.

The company is the pioneer in the field with about an 80 percent market share, according to the accreditation body.

President Masaru Terakoshi said that one of Japan’s global carmakers employed the certificate as part of its corporate social responsibility policy for 15 years but terminated a contract with the issuer two years ago.

The automaker, however, is set to repurchase the warrant this year following re-examination of how it can apply the certificate to its production activity.

Terakoshi declined to specify which automaker, but the example indicates that Japan’s multinational corporations are becoming more aware of taking leadership roles in the fight against climate change.

“Otherwise, companies face a risk of losing clients,” he said, as most of the world backs the landmark Paris accord goal of effectively reducing net carbon dioxide and other greenhouse gas emissions to zero in the second half of this century.

The tradable certificate is widely used. Some hotels, for example, buy the warrants to show that their banquets are sustained by clean energy.

In its latest draft energy mix plan, due to be finalized this summer, the Ministry of Economy, Trade and Industry called nuclear power “an important baseload energy source.” This stance appears to conflict with public opinion, which shifted after the 2011 Fukushima disaster. In addition to public sentiment against nuclear power plants, the government’s tougher safety standards led to the shutdown of all reactors.

In the fiscal year through March 2017, fossil fuels accounted for 83 percent of Japan’s electricity output capacity. Renewables are currently at 15 percent.

The ministry proposes that nuclear power should account for 20-22 percent of the country’s power sources in 2030, and renewables 22-24 percent, which still lags behind the equivalent figures seen for major European nations in 2015.

TEPCO still eyeing new nuclear plant



Experts from the Nuclear Regulation Authority (NRA) examine a geological layer at the site of the Higashidori nuclear power plant in Aomori Prefecture, on Dec. 14, 2012. (Mainichi)

TEPCO willing to resume Higashidori nuclear plant construction

<https://mainichi.jp/english/articles/20180630/p2g/00m/0dm/004000c>

June 30, 2018 (Mainichi Japan)

TOKYO (Kyodo) -- Tokyo Electric Power Holdings Inc. will launch a new site survey for its nuclear plant construction in northeastern Japan, suspended after the 2011 Fukushima disaster, with the company's president expressing readiness Friday to push the project forward.

- **【Related】** Proposed storage of spent nuclear fuel sparks resistance in Aomori Pref. city
- **【Related】** Election Battlegrounds: Area merger overshadows nuclear power debate in Aomori

TEPCO said it will conduct a full-fledged geological survey to devise stronger safety measures and see whether future facility expansion is possible on the site of the Higashidori nuclear power plant in Aomori Prefecture.

The survey will be carried out from later this year or early next year to around 2020, it said. Tepco has said it would seek participation of other companies in the Higashidori construction project.

"As we restart the (Higashidori) project, I want to make sure that a new plant would excel in safety,"

President Tomoaki Kobayakawa told a press conference, adding, "The geological survey is a very significant step to move forward on the joint development of Higashidori."

Construction of new nuclear power plants has stalled in Japan due to heightened safety concerns following the crisis at the Fukushima Daiichi plant, triggered by the March 2011 earthquake and tsunami disaster. The resumption of existent nuclear plants' operations has also been slow after the government implemented stricter safety regulations.

TEPCO expects the Higashidori project to expand its revenue as it faces huge compensation payments in connection with the Fukushima nuclear crisis and plant decommissioning costs.

TEPCO has asked major utilities, including Tohoku Electric Power Co., Chubu Electric Power Co., and Japan Atomic Power Co., to cooperate in the joint construction and operation of the Higashidori plant.

TEPCO said Friday it hopes the utilities would decide around 2021 whether to join the project by taking into account the results of the geological survey.

The company plans to build two reactors at the site, with construction of the No. 1 reactor having started in January 2011.

June 29, 2018

TEPCO to begin survey for new nuclear plant

https://www3.nhk.or.jp/nhkworld/en/news/20180629_39/

A Japanese electric power company that's grappling with the aftermath of a nuclear meltdown accident says it will begin a geological survey for a possible new nuclear plant.

Tokyo Electric Power Company, or TEPCO, said on Friday the survey is planned from the 2nd half of fiscal 2018 through fiscal 2020 in Higashidori in Aomori Prefecture, northern Japan.

It will be the first full-scale survey at the site since the March 2011 accident at TEPCO's Fukushima Daiichi nuclear plant.

The power company was due to start running its first reactor in Higashidori in March 2017. But construction has been suspended since the nuclear accident and the site remains vacant.

TEPCO says the survey will involve drilling to check soil and the structure underground. It says it will also consider how the new plant could meet tougher regulations introduced after the 2011 accident.

The company plans to ask other power companies to jointly build and operate the Higashidori plant, as it faces mounting costs to decommission the Fukushima reactors and pay compensation.

The deputy chief of TEPCO's Aomori office, Yoshinori Ono, said he hopes the potential partners will decide whether to join the project in around fiscal 2020.

Toward a reduction of the plutonium stockpile?

July 3, 2018

Tokyo plans shift toward renewable energy, planning for first time to cut plutonium stockpile

<https://www.japantimes.co.jp/news/2018/07/03/national/tokyo-eyes-renewable-energy-plans-cut-plutonium-stockpile/#.WztfKloyVLM>

Kyodo, Staff Report

Japan will shift further toward renewable energy and cut dependence on fossil fuels and nuclear power, according to the country's energy plan approved Tuesday by the Cabinet.

Ahead of the automatic July renewal of the U.S.-Japan agreement on the peaceful use of nuclear energy, the plan for a medium- to long-term energy policy also mentioned that Japan will work to reduce its plutonium stockpile for the first time.

The increased focus on renewables under the 2015 Paris climate accord underscores the nation's daunting challenge to reduce greenhouse gas emissions drastically in the years ahead.

The government, which updates the energy plan roughly every three years, kept its goals the same for its mix of energy sources in fiscal 2030 but did not give specific numbers for fiscal 2050 — the year when it has to clear its specific commitment in fighting global warming.

Toward 2030, the government aims to have renewables account for 22 to 24 percent, fossil fuels 56 percent and nuclear power 20 to 22 percent of the country's electricity generation, the energy plan showed.

With its 2016 energy self-sufficiency ratio below 10 percent, resource-poor Japan needs to secure stable energy supplies for economic activity and national security while also ensuring the safety of nuclear power generation following the 2011 Fukushima accident.

The country also needs to accelerate efforts to fight global warming, now that it has set the goal of achieving an 80 percent cut in greenhouse gas emissions in fiscal 2050 from 2013 levels.

The energy plan calls for supporting the development of a sustainable market for renewables, such as solar, wind and geothermal power, and encourages the use of hydrogen.

Placing a priority on safety, the nation will cut dependence on nuclear power generation "as much as possible," the energy plan said.

Still, it also acknowledged that nuclear power is one of the viable choices to achieve a shift away from using coal and other fossil fuels and cut greenhouse gas emissions.

Much of the country's nuclear power plants have been taken offline since the Fukushima disaster. The administration of Prime Minister Shinzo Abe is seeking to restart plants that have cleared safety checks.

The Japan-U.S. nuclear pact currently enables Japan to continue its spent-fuel reprocessing program for 30 years to July 2018.

Spent fuel from nuclear reactors is reprocessed to extract uranium and plutonium, which is then recycled into fuel called mixed oxide, or MOX, for use in fast-breeder reactors or conventional nuclear reactors.

In a June 21st open letter to International Atomic Energy Agency Director General Yukiya Amano that expressed concern about the management of plutonium stocks, three anti-nuclear groups said efforts to restart nuclear reactors, especially those that use MOX fuel, to meet the long-term energy goal for nuclear power were unrealistic.

"Our analysis over recent years, and to the present, indicates that Japan will fail to meet its nuclear restart target of 30 gigawatts by 2030 by a wide margin. Many more nuclear reactors are likely to be decommissioned" in the coming years joining the 17 that have been declared such since 2011, said a letter jointly signed by Hideyuki Ban, co-director of Citizens' Nuclear Information Center, Aileen Mioko Smith, director, Green Action, and Shaun Burnie, a senior nuclear specialist at Greenpeace Germany.

"In addition to the four reactors that have resumed operation with partial MOX fuel cores, it is uncertain how many of the remaining six reactors that have received MOX approval will actually restart during the next 10 years. They are all confronted with multiple challenges, including seismic faults, as well as legal and political opposition," the letter added.

Decarbonisation & Japan



July 3, 2018

Japan's energy and decarbonization challenge

by Tomoaki Nakanishi

The government has just reviewed its energy strategy or Basic Energy Plan — the first review in four years. In the 2017 COP23 United Nations Climate Change Conference held in Bonn, Germany, an international network of nongovernmental organizations awarded the Fossil of the Day prize to Japan. But in reviewing its energy strategy, Japan has declared that it will meet the challenge of developing new energy sources and technologies and achieving decarbonization under a long-term timetable stretching to 2050 by taking into consideration the Paris agreement adopted at the 2015 COP21 conference.

The energy landscape has undergone rapid changes in recent years.

First, the prices of energy from renewable sources have fallen on a global scale and new endeavors to develop new technologies for decarbonization, such as energy storage and digital control technologies needed for large-scale introduction of renewable energy, have started with the participation of a wide range of industrial sectors.

Second, new risks that are qualitatively different from conventional geopolitical risks have arisen with the rising presence of emerging powers such as China and India.

Third, competition for dominance in technological development for decarbonization has kicked off among major countries and energy companies, leading people to anticipate the emergence of a society in which technologies will serve as key resources.

In foreseeing the situation in 2050, it must be recognized that the degree of uncertainty for the future is extremely high. At the same time, the high degree of uncertainty means that there will be possibilities in the future. In facing an era of both uncertainty and possibilities, it will be important not only to set an ambitious goal to pursue the possibility of every option but also to consider multiple scenarios that should be scientifically reviewed on the basis of the latest technological trend and global situation for flexible adjustments.

To begin with, Japan, poor in domestic energy resources, is an insular country with no power transmission networks connected with other nations. Therefore it has tried to cope with its intrinsic situation by

exploring the possibility of every energy source to achieve the best mix of 3E+S — energy security, economic efficiency and environmental protection with safety serving as the major premise. In developing Japan's energy strategy, the recent experience of Germany offers a useful suggestion. Germany is trying to achieve decarbonization by fading out nuclear power and expanding renewable energy sources. But now it faces difficulty in reducing its dependency on coal-fired thermal power generation although its use of renewable energy sources is expanding. It must be noted that as a result, its reduction of carbon dioxide emissions has become slow and household electricity bills have risen. It also must not be forgotten that a nation like Germany, which can sell or buy electricity to and from neighboring countries through international power transmission networks, can absorb to some extent the fluctuation of power output from renewable energy sources by means of export and import of electricity. In any case, each country is trying to build an optimum energy system under its given conditions, which are different from one country to another. In this situation, it is important to develop an energy policy under the 3E+S approach.

Let me discuss individual energy sources. The first is a zero-carbon emission power source consisting of renewable energy sources and nuclear power.

After the Great East Japan Earthquake of 2011, Japan reviewed its nuclear power policy from scratch. While seeking to reduce the dependency on nuclear energy for power supply as much as possible, the energy policy aims to squarely tackle the problem of the high cost of renewable energy sources — which remain relatively high compared with overseas — so as to turn the renewables into a major power source. In view of the fact that nuclear power is an important option already in use for achieving decarbonization, Japan will immediately start seeking reactors excellent in safety, flexibility and economic efficiency as well as developing back-end technologies to win back public trust in nuclear power.

The second is coal-fired thermal power. Currently Japan has highly advanced technologies to utilize coal. For example, by introducing an integrated gasification combined cycle (IGCC), which uses a high-pressure gasifier to turn coal and other carbon-based fuels into pressurized gas, and an integrated gasification fuel cell cycle (IGFC), a fuel cell-based power cycle consuming gasified solid fuels such as coal and biomass fed directly to fuel cells operation at high temperature, it will become possible to cut carbon dioxide emissions significantly even compared with the latest coal-fired plant currently in use. (IGCC will be able to reduce the emissions by about 10 percent more and IGFC 30 percent.) Japan is currently building a large, commercial-use IGCC power plant and carrying out a demonstration experiment of IGFC.

Japan can greatly contribute to reducing global greenhouse gas emissions by passing its highly efficient coal-utilization technologies to countries that have no other choice but to rely on coal as an energy source. Japan, on the other hand, will phase out its low-efficiency coal-fired power generation.

Japan's journey toward 2050 has just begun. It will try to accomplish an ambitious goal of achieving an 80 percent reduction in greenhouse gas emissions on multiple scenarios that will be scientifically reviewed. Although the goal is ambitious, the approach will be flexible. Concrete measures must be worked out from now on.

To achieve the goal, the government and the private sector must fully cooperate. In partnership they will push innovative technological development in areas needed for decarbonization, such as power storage, use of hydrogen, nuclear power, diversification of energy sources and heat utilization.

In the financial market, where environmental, social and governance criteria are gaining importance recently, energy companies and the financial sector will have dialogue to build a funding circulation mechanism, in which they will jointly write a scenario to change the energy landscape and pursue decarbonization.

Since the annual global carbon dioxide emissions top 30 billion tons, with Japan emitting roughly 1.1 billion tons, it is clear that worldwide proliferation of non-carbon technologies is indispensable. Japan will serve as a bridge to link energy-consuming nations and resource-rich countries.

Japan is determined to contribute to and fulfill development of new energy sources/technologies and decarbonization, a long-term goal of humankind, by implementing policies under the new basic energy plan.

Tomoaki Nakanishi is former director of the International Affairs Office of the Natural Resources and Energy Agency at the Ministry of Economy, Trade and Industry.

No-entry signs in English to deter tourists from trespassing



English signs along National Road No. 114 on the border between Namie and Kawamata in Fukushima Prefecture (Taro Kotegawa)

July 4, 2018

English signs tell tourists to stay away from Fukushima plant

<http://www.asahi.com/ajw/articles/AJ201807040009.html>

By TARO KOTEGAWA/ Staff Writer

NAMIE, Fukushima Prefecture--English signs now appear along roads in Fukushima Prefecture **to prevent curious, thrill-seeking or simply ignorant foreign tourists from entering areas of high radiation.**

The central government's local nuclear emergency response headquarters set up 26 signs at 12 locations along the 70-kilometer National Road No. 114 and elsewhere starting in mid-April. The signs carry straightforward messages in English, such as "No Entry!"

In September, a 27-kilometer section of the road opened in Namie's "difficult-to-return zone" near the crippled Fukushima No. 1 power plant for the first time since the Great East Japan Earthquake, tsunami and nuclear disaster in March 2011.

The road is mainly used by construction vehicles involved in rebuilding projects and dump trucks transporting contaminated soil to intermediate storage facilities.

Motorists can use the reopened section, but they are urged to refrain from stopping or venturing outside their vehicles. Pedestrians and motorcyclists are still forbidden from the area because of the high radiation levels.

But **an increasing number of people from abroad are visiting the area, some to snap photos**, according to Fukushima prefectural police.

Many have gotten out of their vehicles or entered the "no-go" zone by motorbike or foot.

Prefectural police asked the central government for help to deal with the trespassers.

"When police questioned foreigners who were taking photos in the difficult-to-return zone, they said they did not know that entering the area was prohibited," a police official said.

Officials also wanted to avoid any confusion from the signs with technical terms, such as "difficult-to-return zones," which are the areas most heavily polluted by radiation that remain essentially off-limits even to residents.

An official of the Cabinet Office's nuclear disaster victim life assistance team, which developed English messages, said they decided to use simpler expressions, such as "high-dose radiation area," for the signs. The signs have already produced a positive effect.

"A foreign motorcyclist came here the other day, so I told the person to return by pointing to the English signboard," said a security guard who monitors the Namie-Kawamata border zone at the Tsushima Gate.

Restarting Tokai 2 "a huge mistake"

July 5, 2018

EDITORIAL: Restarting Tokai No. 2 nuclear plant would be a huge mistake

<http://www.asahi.com/ajw/articles/AJ201807050026.html>

The Nuclear Regulation Authority has concluded that the Tokai No. 2 nuclear power plant in Ibaraki Prefecture, operated by Japan Atomic Power Co., meets improved safety standards for a restart.

The watchdog body's decision effectively paves the way for bringing the idled facility back online.

But **a slew of questions and concerns cast serious doubt on the wisdom of restarting this aging nuclear plant located at the northern tip of the Tokyo metropolitan area, given that it is approaching the end of its 40-year operational lifespan.**

There is a compelling case against bringing the plant back on stream unless these concerns are properly addressed.

The first major question is how the project can be squared with the rules for reducing the risk of accidents at aging nuclear facilities.

The 40-year lifespan for nuclear reactors is an important rule to reduce the risk of accidents involving aging reactors that was introduced in the aftermath of the disaster at the Fukushima No. 1 nuclear power plant in 2011.

Although a reactor's operational life can be extended by up to 20 years if approved by the NRA, the government, at the time of the revision to the law, said it would be granted only in exceptional cases.

Despite this caveat, Kansai Electric Power Co.'s applications for extensions for its three aging reactors all got the green light.

The NRA has yet to approve the requested extension of the Tokai No. 2 plant's operational life. But **it is obvious that the nuclear watchdog's approval will cause further erosion of the rule. It will also undermine the regulatory regime to limit the lifespan of nuclear facilities per se.**

Local communities have also raised objections to restarting the Tokai No. 2 plant. Some 960,000 people live within 30 kilometers of the plant, more than in any other 30-km emergency planning zone.

The local governments within the zone are struggling to develop legally required emergency evacuation plans to prepare for major accidents.

This spring, an agreement was reached between Japan Atomic Power and five municipalities around the plant, including Mito, that commits the operator to seek approval from local authorities within the 30-km zone before restarting the plant.

Winning support from the local communities for the plant reactivation plan is undoubtedly a colossal challenge, given strong anxiety about the facility's safety among local residents. The gloomy situation was brought home by the Mito municipal assembly's adoption of a written opinion opposing the plan.

But Japan Atomic Power is determined to carry through the plan as its survival depends on the plant continuing operation.

The company was set up simply to produce and sell electricity by using atomic energy. Its nuclear reactors are all currently offline, which has placed the entity in serious financial difficulty.

Since the company is unable to raise on its own funds to implement the necessary safety measures at the Tokai No. 2 plant, which are estimated to exceed 170 billion yen (\$1.54 billion), Tokyo Electric Power Co. (TEPCO) and Tohoku Electric Power Co., which are both shareholders and customers of the company, will provide financial support.

But TEPCO has been put under effective state control to deal with the costly consequences of the Fukushima disaster.

It is highly doubtful that the utility, which is kept alive with massive tax-financed support, is qualified to take over the financial risk of the business of another company in trouble.

TEPCO claims the Tokai No. 2 plant is promising as a source of low-cost and stable power supply, although it has not offered convincing grounds for the claim.

Some members of the NRA have voiced skepticism about this view.

TEPCO and the Ministry of Economy, Trade and Industry, which supervises the power industry, have a responsibility to offer specific and detailed explanations about related issues to win broad public support for the plan to reactivate the Tokai No. 2 nuclear plant.

A hard look at the grim situation surrounding the plant leaves little doubt that restarting it does not make sense.

Japan Atomic Power and the major electric utilities that own it should undertake a fundamental review of the management of the nuclear power company without delaying efforts to tackle the problems besetting the operator of the Tokai No. 2 plant.

Boosting nuke antiterrorism ahead of Olympics

July 11, 2018

Japan to beef up nuclear security before Rugby World Cup, Olympics

<https://mainichi.jp/english/articles/20180711/p2g/00m/0dm/106000c>

TOKYO (Kyodo) -- Japan's nuclear watchdog decided Wednesday to oblige facilities using any of about 200 radioactive materials to introduce antitheft measures to enhance nuclear security ahead of the 2019 Rugby World Cup and 2020 Tokyo Olympics.

- **【Related】** Nuclear watchdog OKs restart of aging nuclear plant hit by tsunami
- **【Related】** Editorial: Time to transform Japan's nuclear plant inspection system
- **【Related】** Japan drops in Hiroshima Report rankings due to refusal to sign nuclear ban treaty

As part of the country's efforts to boost counterterrorism steps before hosting the major sporting events, the government will aim at enforcing related laws in September 2019, in time for the Rugby tourney kicking off on Sept. 20 that year, which would cover some 500 business operators, the Nuclear Regulation Authority said.

Hospitals and companies and the like would be required to install surveillance cameras near their storage sites for radioactive materials. The containers must be kept in rooms with solid doors and manuals and communication equipment must be provided for personnel to deal with intruders, to prevent such materials from falling into the hands of terrorists.

Nuclear power plants have already introduced a personal background investigation system to prevent potential terrorists from being hired as workers.

According to the NRA, the planned regulation would cover radioactive substances including cesium 137 and cobalt 60, which are widely used for medical and industrial purposes, but which could be used in so-called dirty bombs.

Amid the globally mounting threat of terrorism, the International Atomic Energy Agency advised countries in January 2011 to take measures to better manage radioactive materials.

Tokyo, however, has yet to introduce these steps due to its need to deal with the 2011 Fukushima Daiichi nuclear disaster.

In Brazil, instruments for radiation therapy were taken away from the former site of a hospital and then dismantled. But it led to large-scale exposure and the deaths of four people in 1987.

Hibakusha try and convince US to ratify treaty

July 14, 2018

Hibakusha calls for global ban on nuclear arms

https://www3.nhk.or.jp/nhkworld/en/news/20180714_16/

A Japanese atomic bomb survivor has called for putting the UN nuclear weapons ban treaty into effect as soon as possible. The UN Treaty on the Prohibition of Nuclear Weapons was adopted a year ago.

About 50 people, including members of NPOs, took part in an event in New York on Friday.

A 76-year-old survivor, Koji Ueda spoke about his experiences following the 1945 US atomic bombing of Hiroshima. He was 3 years old when the city was reduced to ashes by the bomb.

Ueda said that his mother took care of people with severe burns, and that many of the deceased were

cremated on the spot. He stressed that the horrifying experiences that hibakusha suffered should not be repeated.

Ueda urged countries to ratify the nuclear weapons ban treaty so that the pact can go into effect as early as possible.

Only 11 nations and territories have so far ratified it.

Pressure from nuclear-armed countries is believed to be blocking the move.

Akira Kawasaki, a member of the steering committee of the International Campaign to Abolish Nuclear Weapons, urged participants to step up efforts to convince the US government. ICAN was awarded the Nobel Peace Prize last year.

An American participant said that he was moved by the hibakusha's speech. He said that he disagrees with the US government's opposition to the treaty and that he will urge members of Congress to accept the treaty.

Torch relay in Fukushima to lift spirits?

July 13, 2018

1964 Olympic torch bearer hopes 2020 runners will spur hope in Fukushima

<https://mainichi.jp/english/articles/20180713/p2a/00m/0na/018000c>

YABUKI, Fukushima -- A 71-year-old man here who served as a torch bearer in the 1964 Tokyo Olympics looks to see young people from this prefecture encourage residents affected by the nuclear disaster through their torch relay ahead of the 2020 Tokyo Games.

- **【Related】** Tokyo 2020 torch relay plan draws attention to areas hit by March 2011 disasters
- **【Related】** 2020 Olympic torch relay to start in Fukushima on March 26
- **【Related】** Tokyo Olympics

Fukushima Prefecture was on July 12 named the starting point for the 2020 Olympic torch relay in Japan. 1964 runner Masao Yabuki, a resident of the prefectural town of Yabuki, hopes that the relay will play a part in boosting disaster recovery, as touted by the Tokyo 2020 organizing committee.

"I hope the torch relay will uplift the spirits of those affected by the disaster, if only a little," said Yabuki, a former Japan Agricultural Cooperatives employee.

Yabuki was a third-year student and a member of a track team at what is now Shirakawa Jitsugyo High School in Shirakawa in southern Fukushima Prefecture, when he was chosen to run in the city, alongside two teammates. "I was probably picked as I was a third-year student back then. I was just lucky," he recalled.

He was assigned to run through an approximately 2-kilometer zigzag course from the entrance to the castle town's downtown area to the city hall. He practiced by holding a metal bat high up in the air with his right hand while running.

On Sept. 30, 1964, he covered the designated stretch with the real Olympic torch in his hand as some 100,000 spectators filled the streets.

"My mind was completely blank. I couldn't even hear cheers from spectators as I was so absorbed," he said.

Nearly half a century later, Yabuki's house was partially damaged due to a massive earthquake registering a lower 6 on the Japanese seismic intensity scale of 7 in his area on March 11, 2011.

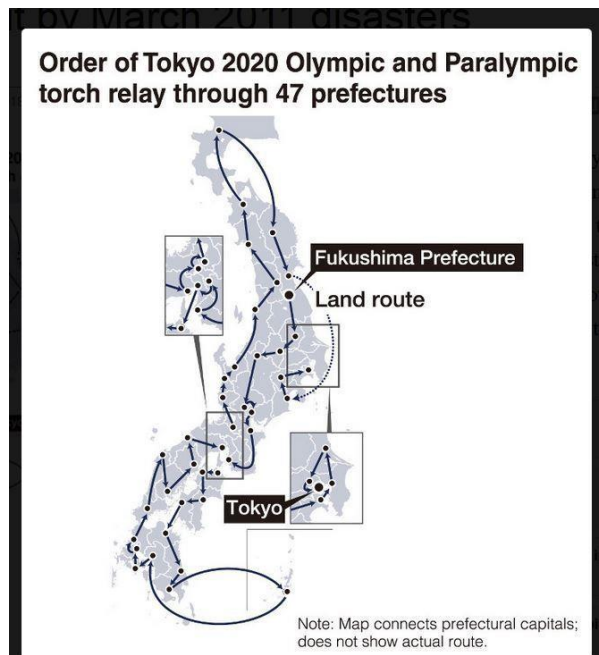
In the wake of the Fukushima nuclear disaster triggered by the quake and ensuing tsunami, temporary housing units for evacuees from the nuclear disaster were built in the town of Yabuki. Seven years on, people who are still unable to return to their hometowns are living in those housing units.

Last year, Yabuki drove through areas along the Pacific Coast stricken by the tsunami and nuclear disasters. What he saw were rice paddies and fields long left unattended and almost empty streets, even in areas where nuclear evacuation orders had already been lifted. In other areas where such orders remained in place, towns were overgrown with wild grass and trees. Such landscapes saddened Yabuki. The Fukushima Prefectural Government will establish an organizing committee for the 2020 Games to select the specific torch relay path. The governments of 15 cities, towns and villages in the prefecture -- which were damaged by the 2011 tsunami and ordered to evacuate residents due to the nuclear crisis -- are calling for their streets to be included in the relay route.

While Yabuki wishes to once again become a torch bearer himself, even if to cover just 100 meters, he believes that the upcoming torch relay should be one that can uplift local residents by covering the coastal "Hamadori" region of Fukushima, not the mid-inland "Nakadori" region including the town of Yabuki, to embody the spirit of the "disaster recovery Olympics" by conveying the current situation to the rest of the country.

(Japanese original by Shuji Ozaki, Fukushima Bureau)

Torch relay in Fukushima



July 13, 2018

Tokyo 2020 torch relay plan draws attention to areas hit by March 2011 disasters

<https://mainichi.jp/english/articles/20180713/p2a/00m/0na/007000c>

With the starting point for the 2020 Tokyo Olympic and Paralympic Games torch relay set to begin in Fukushima Prefecture, which was hit hard by the March 2011 quake, tsunami and nuclear disaster, anticipation is growing in the prefecture and other areas ahead of the two-year countdown mark to the games on July 24.

- **【Related】** 1964 Olympic torch bearer hopes 2020 runners will spur hope in Fukushima
- **【Related】** 2020 Olympic torch relay to start in Fukushima on March 26
- **【Related】** Swimmers put on traditional-style show in bid to join Tokyo 2020 torch relay
- **【Related】** IOC approves extension of Tokyo Olympic torch relay
- **【Related】** Mori requests longer Olympic torch relay for flame to travel through disaster-hit areas

The torch relay for the 1964 games wrapped the entire country up in passion for the event, but the 2020 relay looks to become an even bigger phenomenon, making its way through all 47 of Japan's prefectures. The Tokyo Organising Committee of the Olympic and Paralympic Games established a committee and began selecting the route and the starting point in February 2017. From the outset, the committee had planned to pay special attention to disaster-hit areas, but the relay was to begin in late March, and in the northern Japanese regions of Hokkaido and Tohoku, the temperature would still be low.

Moving from the southernmost prefecture of Okinawa northward with the blooming spring cherry blossoms was the most logical choice, and there were southwestern areas of the country such as Kumamoto Prefecture, which was hit by a double earthquake disaster in April 2016, and other areas around the country that could represent Japan's resilience. There were arguments as to whether or not the message of recovery should be limited to just the areas hit by the March 2011 triple disaster. Still, the committee decided to begin the route in Fukushima Prefecture to dispel any doubts that the image of "disaster recovery" held up by the organizing committee and the government would be obscured. The idea of holding the games as a sign of recovery had been put forward since the International Olympic Committee general assembly met in September 2013 when the Tokyo games were decided, but the proposal ended up being a double-edged sword -- foreign media were still pointing out the risks of contaminated water leaking from the Fukushima No. 1 Nuclear Power Plant. Japanese Prime Minister Shinzo Abe, however, who traveled to where the assembly was held in Buenos Aires, explained that the "situation was under control."

Despite the government's commitment to a games in the spirit of recovery, the people of Japan have not been so fast to warm up to the idea, asking what the games will actually do for the reconstruction of the regions hit by disasters. With personnel, financial resources and facilities lacking, there were quite a few disaster-hit municipalities that viewed things like "host town" registration to plan exchanges with participating countries and regions as well as the hosting of pre-game training camps as burdensome. In November 2016, the Tokyo 2020 organizing committee decided that Fukushima Prefecture would be the venue for the baseball and softball events of the games, and in April this year, it was decided that the Olympic flame from Greece would be exhibited in the three prefectures on the northeastern Pacific coast hit hardest by the March 2011 disasters -- Fukushima, Miyagi and Iwate -- as a "flame of recovery."

"We have to create some substance to the image of the games as an event of recovery," said Minister in charge of the Tokyo Olympic and Paralympic Games Shunichi Suzuki, emphasizing the need to connect the activities of the games to the regions they hoped to uplift.

In the relay path announced on July 12, the torch will not travel through the three prefectures of Fukushima, Miyagi and Iwate at once, but rather travel south from Fukushima to do away with worries about the March temperatures in the northern region of Japan. So far, there have not been any complaints. Mayor Hiroshi Kameyama of the heavily hit city of Ishinomaki in Miyagi Prefecture, just north of Fukushima, who fought for his city to be the relay starting point, released a comment stating, "We're all a part of the Tohoku region, and I hope that having Fukushima Prefecture, where there are still quite a number of victims of the disaster, decided as the starting point for the relay will provide strength in moving toward reconstruction."

(Japanese original by Kazuhiro Tahara, Tadashi Murakami and Akira Matsumoto, Sports News Department)

IPPNW launches a campaign about the "Radioactive Olympics"

International Campaign

"Tokyo 2020 - The Radioactive Olympics"

In 2020, Japan is inviting athletes from around the world to take part in the Tokyo Olympic Games. We are hoping for the games to be fair and peaceful. At the same time, we are worried about plans to host baseball and softball competitions in Fukushima City, just 50 km away from the ruins of the Fukushima Dai-ichi nuclear power plant. It was here, in 2011, that multiple nuclear meltdowns took place, spreading radioactivity across Japan and the Pacific Ocean - a catastrophe comparable only to the nuclear meltdown of Chernobyl.

The ecological and social consequences of this catastrophe can be seen everywhere in the country: whole families uprooted from their ancestral homes, deserted evacuation zones, hundreds of thousands of bags of irradiated soil dumped all over the country, contaminated forests, rivers and lakes. Normality has not returned to Japan.

The reactors continue to be a radiation hazard as further catastrophes could occur at any time. Every day adds more radioactive contamination to the ocean, air and soil. Enormous amounts of radioactive waste are stored on the premises of the power plant in the open air. Should there be another earthquake, these would pose a grave danger to the population and the environment. The nuclear catastrophe continues today.

On the occasion of the Olympic Games 2020, we are planning an international campaign. Our concern is that athletes and visitors to the games could be harmed by the radioactive contamination in the region, especially those people more vulnerable to radiation, children and pregnant women.

According to official Japanese government estimates, the Olympic Games will cost more than the equivalent of 12 billion Euros. At the same time, the Japanese government is threatening to cut support to all evacuees who are unwilling to return to the region.

International regulations limit the permitted dose for the general public of additional radiation following a nuclear accident to 1 mSv per year. In areas where evacuation orders were recently lifted, the returning population will be exposed to levels up to 20 mSv per year. Even places that have undergone extensive

decontamination efforts could be recontaminated at any time by unfavourable weather conditions, as mountains and forests serve as a continuous depot for radioactive particles.

Our campaign will focus on educating the public about the dangers of the nuclear industry. We will explain what health threats the Japanese population was and is exposed to today. Even during normal operations, nuclear power plants pose a threat to public health – especially to infants and unborn children.

There is still no safe permanent depository site for the toxic inheritance of the nuclear industry anywhere on earth, that is a fact.

We plan to use the media attention generated by the Olympic Games to support Japanese initiatives calling for a nuclear phase-out and to promote a worldwide energy revolution: away from fossil and nuclear fuels and towards renewable energy generation.

We need to raise awareness of the involvement of political representatives around the world in the military industrial complex.

We denounce the attempt of the Japanese government to pretend that normality has returned to the contaminated regions of Japan.

We call on all organisations to join our network and help us put together a steering group to coordinate this campaign. The Olympic Games are still two years away – now is still time to get organised.

We look forward to hearing from you,

with best regards,

For the campaign „Nuclear Free Olympic Games 2020“:

Annette Bänsch-Richter-Hansen

Jörg Schmid

Henrik Paulitz

Alex Rosen

TEPCO shareholders oppose restart of Tokai plant: Money can be put to better use

July 13, 2018

Shareholders seek injunction on TEPCO funds for Tokai plant

<http://www.asahi.com/ajw/articles/AJ201807130019.html>

THE ASAHI SHIMBUN

Three shareholders of Tokyo Electric Power Co. Holdings Inc. (TEPCO) filed a temporary injunction request on July 12 with the Tokyo District Court to stop the utility from providing financial support for the resumption of the Tokai No. 2 nuclear plant.

The plaintiffs argued that the interests of TEPCO and its shareholders would be violated if support was provided to Japan Atomic Power Co. with little likelihood of collecting a return from that venture.

The Nuclear Regulation Authority on July 4 gave the green light regarding safety measures submitted by Japan Atomic Power for the restart of its plant in Tokai, Ibaraki Prefecture, northeast of Tokyo.

However, since the 2011 Great East Japan Earthquake and tsunami, Japan Atomic Power has not operated any of its nuclear plants, and it had sought financial support in the form of loan guarantees from TEPCO and Tohoku Electric Power Co.

That support is essential to procuring the 174 billion yen (\$1.5 billion) for Japan Atomic Power to implement needed safety measures for the Tokai No. 2 plant.

The TEPCO shareholders in their request pointed out that the Tokai No. 2 plant would reach the end of its 40-year life span in November. They said that even if the operational life was extended for 20 years, it would be difficult for TEPCO to recover the funds it would, in effect, put up because years would be required to complete the safety measures before any operation could be resumed.

They claim that any financial support would go against provisions in the Companies Law that call for careful management decisions that do not clash with the interests of shareholders.

A TEPCO official declined to comment as no one had yet seen the court request.

While TEPCO itself has had to depend on financial support from the government to deal with the aftermath of the 2011 triple meltdown at its Fukushima No. 1 nuclear plant, company President Tomoaki Kobayakawa explained that the electricity it would receive from the Tokai No. 2 plant would allow for stable and inexpensive electricity to be provided to its customers.

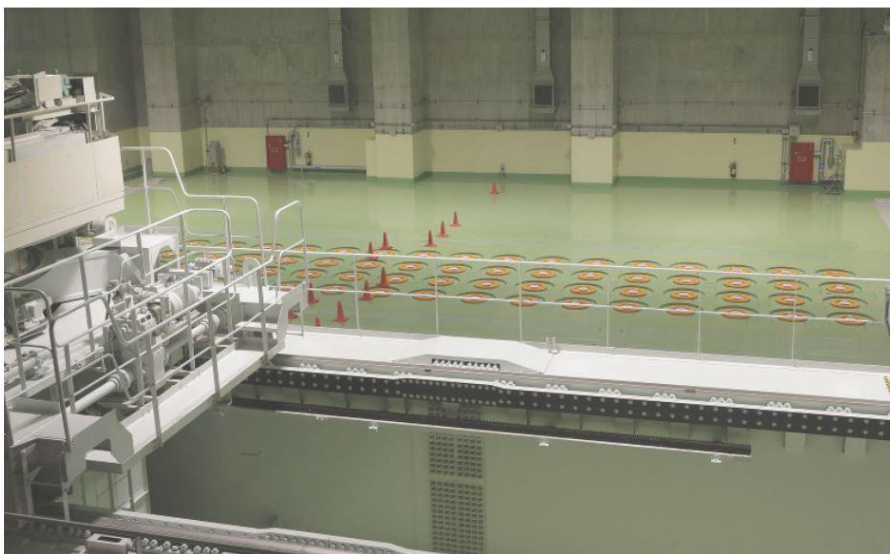
But **not only will a huge amount have to be spent for safety measures at the Tokai No. 2 plant, but Japan Atomic Power will also have to obtain the approval of municipal governments in the vicinity of the plant.**

Even with such hurdles, TEPCO, in effect, was forced to provide financial support to Japan Atomic Power because if it went bankrupt, the financial conditions of TEPCO and the electric power companies that are the major shareholders would be hurt.

Opposition lawmakers have blasted TEPCO for even considering providing financial support and called on TEPCO to use that money to provide compensation for damages from the Fukushima nuclear accident, to decommission the reactors at the crippled plant and to lower electric rates to its customers.

(This article was compiled from reports by Takuya Kitazawa and Rintaro Sakurai.)

How Japan wants to reduce its plutonium stockpile



This Nov. 8, 2012 photo shows a floor crane, foreground, and storage pits at the vitrified high-level radioactive waste storage center, a part of the Rokkasho spent nuclear fuel reprocessing plant facilities, run by Japan Nuclear Fuel Ltd. in Rokkasho village in Aomori Prefecture, northern Japan. (AP Photo/Koji Sasahara)

July 31, 2018

Japan nuclear regulator revises guidelines in bid to reduce plutonium stockpiles

<https://mainichi.jp/english/articles/20180731/p2a/00m/0na/012000c>

TOKYO -- The Japan Atomic Energy Commission (JAEC) has revised its guidelines for the use of plutonium for the first time in 15 years to clearly state that it will endeavor to reduce the country's stockpiles of the material that can be used to produce nuclear arms.

- **【Related】** Japan, US extend nuclear pact amid concern about plutonium stockpile
- **【Related】** Japan nuclear agency urges measures to cut plutonium stocks
- **【Related】** Japan eyes more renewable energy use, plans to cut plutonium pile
- **【Related】** Japan approves 70-year plan to scrap nuclear reprocessing plant

As part of these efforts, a nuclear fuel reprocessing plant in the Aomori Prefecture village of Rokkasho, currently under construction, will be mandated to extract only the necessary amount of plutonium from spent nuclear fuel that can be consumed at nuclear power plants.

The amended guidelines require electric power companies to join hands in consuming plutonium at Japanese nuclear plants that can use the substance as fuel in an effort to steadily decrease the country's stockpiles.

The revisions are aimed at dispelling concerns among the international community, including the United States, about Japan's possession of a massive amount of plutonium from the viewpoint of nuclear non-proliferation.

The commission's role is to present the long-term direction of Japan's nuclear power policy, and it will inform other countries of its stance through the International Atomic Energy Agency headquartered in Vienna. Plutonium stockpile reduction was incorporated in the New Strategic Energy Plan approved by the Cabinet of Prime Minister Shinzo Abe on July 3.

Plutonium is produced by reprocessing nuclear fuel used at atomic power stations. Japan currently possesses approximately 47.3 metric tons of the material, enough to produce approximately 6,000 nuclear weapons. Power companies that operate nuclear plants and other entities store plutonium in Japan and overseas.

The previous guidelines that were set in 2003 stipulated that Japan must not possess plutonium without the purpose of using the material. The recently revised guidelines mentioned reducing Japan's plutonium stockpile for the first time, but did not set numerical goals or a timeframe. It just stated that the maximum amount allowed "will not exceed the current level."

To achieve that objective, the guidelines limit the amount of plutonium that can be extracted from spent nuclear fuel at the Rokkasho reprocessing plant, which the government plans to put into operation in fiscal 2021, to a sufficient amount to produce mixed oxide (MOX) fuel, usually consisting of plutonium blended with natural uranium, to be burned at nuclear plants.

With regard to about 36.7 metric tons of Japanese plutonium being stored in Britain and France, the guidelines also urge utilities to cooperate closely in steadily reducing the amount.

The government wants the companies to use the substance as fuel at nuclear power plants that can use MOX fuel to achieve overall stockpile reductions. The utilities are required to publicize their plutonium usage plans every year.

Japan has been promoting the nuclear fuel cycle project, in which spent nuclear fuel is reprocessed and used as fuel at atomic power stations. For now, the government plans to process used fuel at nuclear plants into MOX fuel, and use such fuel at nuclear plants.

However, the consumption of such fuel has not progressed because only four nuclear reactors that can use MOX fuel for power generation are in operation after the March 2011 outbreak of the Fukushima nuclear crisis.

Once the reprocessing plant in Aomori Prefecture is put into full operation, the amount of plutonium will increase by up to about 8 tons a year. It is estimated that plutonium needs to be used at 16 to 18 nuclear reactors to consume the full amount. Under the current circumstances, operations at the reprocessing plant are bound to be strictly limited.

(Japanese original by Ei Okada, Tokyo Science and Environment News Department)

Japan to reduce plutonium stockpile

https://www3.nhk.or.jp/nhkworld/en/news/20180731_28/

Japan's government commission on nuclear energy has decided to reduce the country's stockpile of plutonium.

Japan has been promoting a program to recycle plutonium extracted from spent nuclear fuel.

In principle it does not possess plutonium whose purpose is unclear, because the material can be used for nuclear weapons.

But the unused stockpile keeps growing. Japan now has 47 tons of plutonium at home and abroad. If the fuel reprocessing plant at Rokkasho Village in the northern prefecture of Aomori is completed as scheduled in 2021, it will produce up to 7 tons of plutonium annually. This has heightened international concern.

The Atomic Energy Commission on Tuesday revised its guidelines on plutonium use for the first time in 15 years, stipulating that the stockpile will be reduced.

Japan currently uses plutonium for mixed oxide fuel for nuclear power plants. Under the revised guidelines, reprocessing plants are obliged to produce only the amount necessary, and what's produced must be used up. Power companies will be asked to cooperate in using and reducing plutonium.

Plutonium used for research and development, as in the Monju fast-breeder reactor, could be disposed of if there's no plan for what to do with it.

Commission chief Yoshiaki Oka said Japan must avoid being seen as stockpiling plutonium, amid global efforts toward nuclear nonproliferation. He stressed the need to specify how plutonium is used.

TEPCO to open decommissioning museum (and draw lessons...)



A rendering of a stage, which projects the life-size cross-section of a nuclear reactor, enabling visitors to see inside of the reactor that suffered a meltdown, using computer graphics and actual footage. (Photo courtesy of Tokyo Electric Power Co.)

July 31, 2018

TEPCO to open museum to display decommissioning process for Fukushima reactors

<https://mainichi.jp/english/articles/20180731/p2a/00m/0na/022000c>

TOMIOKA, Fukushima -- Tokyo Electric Power Co. (TEPCO) announced on July 27 that it will open a museum here to display exhibitions in relation to the Fukushima No. 1 Nuclear Power Plant disaster and its decommissioning work.

- **【Related】** TEPCO eyes 1st contact with fuel debris in damaged nuke reactor from Oct.
- **【Related】** Tepco gets low rating for nuclear accident drills, draws criticism
- **【Related】** Tepco to resume TV commercials, 1st time since 2011 Fukushima crisis

The exhibition, which is scheduled to start in November 2018, will mostly display films in which actors re-enact scenes in the form of dramas, to inform visitors of how the Fukushima nuclear disaster that began on March 11, 2011, was handled and follow-up work, in sections titled, "**Memories and records**" and "**Reflections and lessons**." On a different floor, drama footage introducing measures taken to lower the risk of decommissioning work and descriptions of the enormous worksite will be screened in sections titled, "Conditions at the scene" and "Progress of the work."

There will also be a stage in which a life-size cross-section of a nuclear reactor is projected, using both computer graphics and actual footage. Visitors can also experience a simulation of the situation at the time of the meltdowns and see images of the actual debris.

Makoto Okura, head of TEPCO's Fukushima Revitalization Headquarters, stated at a press conference, "**I want the museum to serve as a venue for people hesitant to come back to local areas to understand what kind of accident it was, and what it's like in reality.**"

The venue for the museum will be a refurbished former Energy Kan building in the Fukushima Prefecture town of Tomioka, which was shut down after the disaster. The exhibition space is approximately 1,900 square meters spread over two stories. Entry to the museum will be free.
(Japanese original by Hideyuki Kakinuma, Fukushima Bureau)

Pinning hopes on nuclear exports

July 29, 2018

Japan and Hitachi pin nuclear export hopes on U.K. project in Wales

<https://www.japantimes.co.jp/news/2018/07/29/business/japan-hitachi-pin-nuclear-export-hopes-u-k-project-wales/#.W13MnclyWos>

by Junko Horiuchi

Kyodo

A nuclear power plant project in Britain is giving Japan a glimmer of hope for spurring infrastructure exports, a key growth strategy of Prime Minister Shinzo Abe.

Hitachi Ltd. and the U.K. government started official talks last month on building new reactors in Wales, with a goal of firing them up in the first half of the 2020s.

The outlook for the ¥3 trillion project is unclear, with both sides facing a string of challenges in the talks going forward.

For Tokyo, the plan is one of its few remaining major overseas projects on the horizon, with other nuclear power generation plans discontinued or facing cancellation.

The government's bet on nuclear power plants as a pillar of infrastructure exports comes as the likes of Germany, Italy, Taiwan and South Korea are pulling out of atomic power generation.

Critics argue that a surge in safety costs and accident worries caused by the 2011 Fukushima disaster, in addition to the lack of viable disposal solutions for radioactive waste, mean there is no justification for keeping faith in nuclear energy. Compounding the sector's decline is the rapidly dropping cost of tapping such renewable energy sources as wind and solar power.

Still, some emerging economies look like they will need new nuclear power plants, and Japanese builders see few chances to construct new ones anytime soon in Japan.

"The Japanese government has been pushing hard for exports of nuclear power plants but it's clear that it's not going well," said Tadahiro Katsuta, a professor at Meiji University. "The government will spare no effort in giving momentum to the exports."

If the project in Britain proves successful, it will give the government "a good excuse" to push harder abroad, he said.

Before the official talks began, Hitachi had told Britain it might not take part in the project to build two advanced boiling water reactors on the Isle of Anglesey in Wales, because the price tag had soared higher than initially estimated.

But an offer by London to shoulder about two-thirds of the cost convinced Hitachi stay in. Tokyo welcomed its decision to begin the talks.

“The nuclear business overseas is significant ... it would lead to strengthening and maintaining human resources and technology for nuclear power in Japan,” Minister of Economy, Trade and Industry Hiroshige Seko told a news conference.

Under the agreement, the British government will subsidize much of the cost through direct investment and loan guarantees, according to sources close to the matter.

“We are currently examining the financial and cost issues of the project, before making a final decision in 2019 on whether to invest in the project,” Hitachi Chief Financial Officer Mitsuaki Nishiyama said Friday at a news conference to announce earnings.

For Hitachi, nuclear power is a core operation. It wants to increase revenue from the business by more than 33 percent to ¥250 billion over the four years through March 2022, mainly through boosting overseas revenue.

Rival Toshiba Corp. exited overseas nuclear operations after incurring huge losses in the United States, a decision that could cripple Tokyo’s efforts to promote Japanese nuclear plants abroad.

Mitsubishi Heavy Industries Ltd., is pursuing a nuclear power plant project in Turkey. But it hit a snag when it saw safety-related costs surge and trading house Itochu Corp. walked away from the project.

In another blow to the government, Vietnam in 2016 decided to abandon a plan to build its first nuclear power plant with Japanese assistance due to tight state finances.

Those failures have led to an increased focus on the new power station in Wales. But London and Hitachi still need to address such issues as how to spread the remainder of the costs among Hitachi, local companies and Japan-backed financial institutions. They also need to determine who should be held liable if there’s a major accident.

They are also at odds over how much the electricity produced at the plant should cost. Britain at one point offered a price some 20 percent lower than what Hitachi wanted, a source familiar with the matter said.

“A key focus of discussions with Hitachi has been and will continue to be achieving lower-cost electricity for consumers,” Greg Clark, British business and energy secretary, told Parliament last month.

The two sides also need to talk to residents and win over those worried about the new power station.

“We have a major multinational and two governments supposed to be democracies playing a high-stakes game of poker ... without any transparency or scrutiny for the people that they are representing,” Mei Tomos, a resident of Wales, said at a news conference in Tokyo during a recent visit to Japan.

“We have seen the destruction which nuclear power can cause. It is really too much to expect us to take the same risks. Even if such an accident didn’t happen at Anglesey we will still be faced with over a hundred years of storage of nuclear waste on site which presents a massive danger to us,” another resident, Robert Davies, said at the news conference.

TEPCO: Low rating over drills

July 26, 2018

Tepco gets low rating for nuclear accident drills, draws criticism

https://mainichi.jp/english/articles/20180726/p2g/00m/0fp/003000c#cxrecs_s

TOKYO (Kyodo) -- The operator of the crippled Fukushima Daiichi nuclear plant was rated poorly over drills assuming a severe accident at a nuclear power plant, Japan's nuclear watchdog said in a report released Wednesday.

The report showed none of three nuclear power plants operated by Tokyo Electric Power Company Holdings Inc. received the highest marks on a three-grade scale for the performance of off-site centers of its plants in information sharing with the watchdog.

The Nuclear Regulation Authority and major utilities including Tepco conducted drills at each site in fiscal 2017 through March on the assumption that the cooling of an atomic reactor has stopped. The results of their drills were disclosed at the watchdog's meeting on Wednesday.

The Kashiwazaki-Kariwa plant in Niigata Prefecture had the lowest rating, while the Fukushima Daiichi and Fukushima Daini plants received middle marks.

The regulator deems information sharing as the most important item out of the nine-point evaluation. A lack of information sharing is said to be one of the factors that worsened the 2011 Fukushima disaster.

A member of the watchdog criticized Tepco's performance, calling it "unforgivable that the operator which caused the nuclear disaster of Fukushima Daiichi complex had a low rating."

According to the report, Tepco staff members at the plant drafted countermeasures to bring the situation under control but failed to properly inform the headquarters in Tokyo.

Tepco is aiming to reactivate its No. 6 and 7 reactors at the Kashiwazaki-Kariwa plant, which cleared government safety standards in December.

"If similar things continue to happen, **Tepco should do its training all over,**" said Akira Ishiwatari, a geologist and another member of the NRA.

Straight from the horse's mouth

July 24, 2018

Ex-IEA official: Nuclear power can't compete with solar power

<http://www.asahi.com/ajw/articles/AJ201807240045.html>

THE ASAHI SHIMBUN

Nuclear power is "ridiculously expensive" compared with solar power and cannot compete from a financial standpoint, said the former head of the International Energy Agency.

During a lecture at a symposium in Tokyo on July 23, Nobuo Tanaka, former IEA executive director, said nuclear power is utterly "uncompetitive" with solar power generation in terms of costs for building or expanding nuclear plants.

"I was greatly shocked to hear that the IEA say that 'solar becomes the cheapest source of electricity generation in many countries' in its 2017 report," said Tanaka, a well-known nuclear power advocate. He has served as an executive board member of the Japan Atomic Industrial Forum Inc., which comprises nuclear plant manufacturers.

Costs for nuclear power plants have been on the rise since the 2011 Great East Japan Earthquake and tsunami that crippled the Fukushima No. 1 nuclear power plant, operated by Tokyo Electric Power Co., and necessitated stricter safety measures.

"Building a new nuclear power plant is ridiculously expensive as it will cost more than 1 trillion yen (\$8.98 billion) to install just one nuclear power reactor," said Tanaka. "It's utterly uncompetitive."

Tanaka also pointed out that the resumption of the Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture seems to be “difficult” because the deadlock in approval to restart the plant is the result of a “lack of public understanding.”

The former IEA official also mentioned the next-generation reactor, saying Japan should strive for regaining public trust by jointly developing the economically efficient reactor with other countries such as the United States.

One such next-generation type is the high-temperature gas reactor, which is safer and more economically efficient than the light-water reactor currently in use because it uses helium gas as the coolant instead of water, and other types of reactors.

Continuing with reprocessing?

August 1, 2018

Editorial: Plutonium reduction does not fit in with nuclear fuel cycle

https://mainichi.jp/english/articles/20180801/p2a/00m/0na/005000c#cxrecs_s

The Japan Atomic Energy Commission (JAEC) has clearly stated for the first time that Japan will try to reduce its plutonium stockpiles. The new policy, incorporated in the commission's revised guidelines, is a reflection of Japan's principle of not holding plutonium without specific purpose of use -- a stance maintained from its standpoint of nuclear nonproliferation.

- **【Related】** Japan nuclear regulator revises guidelines in bid to reduce plutonium stockpiles
- **【Related】** Japan, US extend nuclear pact amid concern about plutonium stockpile
- **【Related】** Editorial: Turn renewal of Japan-US nuclear pact into chance to reconsider reprocessing

Reasserting Japan's position at this juncture is important, as awareness about nuclear security is on the rise and the Japan-U.S. agreement on nuclear cooperation has been extended automatically. However, the first revisions since 2003 are half-baked and do not show a path toward a real reduction. Such measures will not be able to win international trust.

Plutonium is a product of the nuclear fuel cycle. The cycle was conceived out of concerns about uranium depletion, but now there is uranium aplenty. Moreover, fast-breeder reactors, which stood at the core of the cycle, have been found to be difficult to put into actual use and are not viable economically. The United States, Britain, Germany and others have already given up on such projects.

Japan, however has stuck with its nuclear fuel cycle, and to maintain it, the government lets power utilities use plutonium in mixed oxide (MOX) fuel as a stop-gap measure. But this arrangement has faced turbulence in the wake of the 2011 Fukushima nuclear disaster. As a result, the country has been left with stockpiles of about 47 metric tons of plutonium in Japan and overseas.

If a reprocessing plant for spent nuclear fuel that Japan is building in the northern prefecture of Aomori starts operation as planned, its domestic plutonium stockpile is bound to increase. Plutonium can be used to produce nuclear weapons, and it is understandable that Japan's neighbors and the United States have voiced concerns about increases in the amount of the material.

The revised guidelines state that operations at the reprocessing plant will be limited to the level needed to produce enough plutonium for MOX consumption. They also encourage power companies to cooperate in the reduction of overseas stockpiles.

However, the guidelines do not state that reduction is more important than reprocessing, and operation of the reprocessing plant has gone unquestioned. This arrangement is not going to reduce stockpiles.

For a real reduction of plutonium stockpiles, the government should take drastic measures such as freezing operation of the reprocessing plant or discarding plutonium in deep, secure underground locations. Handing over Japan's overseas stockpiles to countries now storing them is an option that merits discussion.

Japan must review the meaning of continuing with reprocessing and its nuclear fuel cycle.

The argument of seeking greater MOX consumption to reduce plutonium stockpiles is preposterous.

Plutonium-based fuels are more expensive than uranium fuel. They also create concerns about nuclear proliferation. How to deal with the spent fuel is a tough question to answer, too.

Japan should not delay its departure from the nuclear fuel cycle any longer.

Japan's efforts to reduce PU stockpiles are not very convincing

August 1, 2018

Japan's efforts to decrease plutonium stockpiles do little to appease US, int'l community

<https://mainichi.jp/english/articles/20180801/p2a/00m/0na/020000c>

TOKYO -- Japan's efforts to decrease its stockpiles of plutonium -- material that can be used to produce nuclear weapons -- have failed to appease the international community, particularly the United States.

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- **【Related】** Japan, US extend nuclear pact amid concern about plutonium stockpile
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- **【Related】** Japan approves 70-year plan to scrap nuclear reprocessing plant

Thomas Countryman, who served as assistant secretary of state for international security and nonproliferation in the U.S. administration of former President Barack Obama, has urged Japan to clarify how it will reduce its stockpiles of plutonium.

During a symposium in Tokyo in June, Countryman emphasized the United States has urged Japan to explain its reduction methods, adding that the current government of President Donald Trump is continuing to press Tokyo for such explanations.

In 1993, when Japan began to disclose the amount of plutonium it possessed, the volume stood at 10.8 metric tons. However, the figure increased more than four-fold to 47.3 tons by the end of 2017. The amount is feared to further increase in the future as Japan is approaching the completion of a spent nuclear fuel reprocessing plant in Rokkasho, Aomori Prefecture, slated for 2021.

Tokyo has explained that the country possesses plutonium mainly to be used as fuel at nuclear plants.

Addressing the situation, Yoshiaki Oka, chairman of the government's Japan Atomic Energy Commission (JAEC), summoned executives of the Federation of Electric Power Companies of Japan (FEPC) in charge of nuclear power in March and conveyed the government's concerns about the international community's reaction to an increase in the amount of plutonium that Japan stockpiles.

"We are facing a serious problem internationally. We're under pressure from the United States to provide a convincing explanation," Oka told FEPC executives.

Japan's wariness over the U.S. reaction to Tokyo's growing stockpiles stems from the automatic extension of a bilateral nuclear agreement that has served as the basis for Tokyo's push for a nuclear fuel cycle policy, in which spent nuclear fuel is reprocessed and reused at such power stations.

Since India's first nuclear test in the 1970s, the international community has been wary of nuclear substances and atomic energy-related technologies. Japan, which lacks resources, has refused to compromise on the reprocessing of spent nuclear fuel to sustain its nuclear fuel cycle project.

The United States agreed that Japan would continue reprocessing spent fuel under the bilateral nuclear agreement that went into force in 1988. Tokyo is the only non-nuclear weapons power allowed to reprocess spent fuel under an agreement with Washington as an exception.

The agreement was automatically extended on July 17 this year, 30 years after it came into force.

However, the renewed accord can now be scrapped if either Japan or the United States declares an end to the pact six months prior.

Since the agreement has become legally fragile, Japan has had no choice but to respect the U.S. position of demanding that Japan decrease its stockpiles of plutonium. The United States also fears that other non-nuclear powers could demand exceptional treatment like that given to Japan.

In response to such concerns, the Diet in 2016 enacted the Spent Nuclear Fuel Reprocessing Fund Act to increase the national government's involvement in spent nuclear fuel processing. Noting that plans to operate reprocessing plants must be approved by the economy, trade and industry minister under the legislation, officials explain that the national government can supervise such projects to prevent the country's stockpiles of plutonium from increasing.

The government attempted to use this framework to convince the international community, but was unsuccessful, a senior official of the Cabinet Office said. "The law doesn't explicitly state that the stockpiles will be slashed. Relevant provisions are vague. The law failed to convince Washington. Therefore, we implemented additional measures," said the official.

The deadlock in Japan's nuclear fuel cycle policy has been part of the problem. In 2016, the government decided to decommission the prototype fast-breeder nuclear reactor Monju in Fukui Prefecture -- the core of the fuel cycle -- because it had hardly been in operation due to a string of technical issues and accidents. For now, the government plans to process used fuel into mixed oxide (MOX) fuel -- usually consisting of plutonium blended with natural uranium -- and use such fuel at nuclear plants.

Such power generation began in 2009, but only four nuclear reactors that can use MOX fuel have so far been put into operation because safety standards have been stiffened following the outbreak of the Fukushima nuclear disaster in March 2011.

The international community, especially the United States, has expressed growing concerns that Japan's stockpiles of plutonium could further increase following the start of operations at the Rokkasho reprocessing plant. A safety inspection by the Nuclear Regulation Authority on the plant has entered a final phase. The current stockpiles have remained high because the material has not been steadily consumed in Japan.

(Japanese original by Ei Okada, Science & Environment News Department)

Hibakusha, Hiroshima mayor want Japan to do more

August 6, 2018

Hibakusha demand Japan sign nuclear ban treaty

https://www3.nhk.or.jp/nhkworld/en/news/20180806_34/

Atomic bomb survivors' groups in Japan have urged Prime Minister Shinzo Abe to sign and ratify the UN Treaty on the Prohibition of Nuclear Weapons, noting that Japan is the only country that has experienced atomic bombings.

Representatives of 7 survivors' groups met with Abe after attending the Peace Memorial Ceremony in Hiroshima on Monday, the anniversary of the US atomic bombing of the city in 1945.

The groups maintained that against the backdrop of summit talks between the United States and North Korea, the world is at a turning point. They asked Abe to sign and ratify the treaty to see that the world will take steps to eliminate nuclear weapons.

Abe replied that he shares the goal of eliminating nuclear weapons from the world. He said Japan will engage with the international community to urge that both nuclear and non-nuclear states take part.

Following his meeting with Abe, the head of the atomic bomb survivors' group in Hiroshima Prefecture, Sunao Tsuboi, said he will continue to make the case that nuclear weapons, which were created by mankind, must be eliminated by mankind.

The head of another survivors' group in Hiroshima, Kunihiko Sakuma, said he felt the way that the prime minister referred to the treaty showed he had not given it much thought. He added that his group will ask next year that Japan sign and ratify the treaty.

Earlier on Monday, Abe reiterated Japan's position that it will not join the nuclear ban treaty because its approach is different from the Japanese government's.

Hiroshima mayor questions nuclear nations' nationalism, wants Japan to do more

<https://mainichi.jp/english/articles/20180806/p2a/00m/0na/016000c>

HIROSHIMA -- Hiroshima Mayor Kazumi Matsui told a ceremony marking the 73rd anniversary of the atomic bombing of the western Japan city here that some countries are "blatantly proclaiming self-centered nationalism and modernizing their nuclear arsenals," and asked the government of Japan to play a "proper role" in leading the world toward the entry into force of the United Nations treaty banning nuclear weapons.

- **【Related】** Full text of Hiroshima Peace Declaration on 73rd A-bomb anniversary
- **【Related】** Text of UN chief's message to memorial ceremony on A-bomb anniv.
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- **【Related】** Text of Commitment to Peace by Hiroshima children on 73rd anniv. of atomic bombing

Prime Minister Shinzo Abe, however, did not refer to the treaty in his speech to the ceremony, repeating the posture he took in last year's event held shortly after the treaty was adopted at the United Nations headquarters in July 2017. Japan is not supporting the international accord banning the production,

possession and use of nuclear arms among its signatories. In his speech this year, Abe said Japan will "make strenuous efforts to serve as a bridge between nuclear powers and non-nuclear states."

Some 50,000 people attended the ceremony on Aug. 6, including hibakusha, or survivors of the atomic bombing, people who lost their loved ones to the U.S. attack in 1945, and ambassadors and representatives from 85 countries worldwide as well as the European Union. The international representation was the third largest on record.

Among five major nuclear weapons states, representatives from the United States, France, Russia and Britain took part in the event. China did not send its emissary. U.S. Ambassador to Japan William F. Hagerty IV made his first appearance at the ceremony since he was sworn in for the current post in July of last year.

All participants observed one minute of silence from 8:15 a.m., the time the Little Boy uranium bomb was dropped and detonated over Hiroshima on Aug. 6, 1945, killing some 140,000 people by the end of that year.

During the ceremony, Matsui started his "peace declaration" with these words: "It's 73 years ago and a Monday morning, just like today. With the mid-summer sun already blazing, Hiroshima starts another day. Please listen to what I say next as if you and your loved ones were there."

Matsui said the number of hibakusha alive today is decreasing, and therefore "listening to them grows ever more crucial." The mayor then touched on the winning of last year's Nobel Peace Prize by the International Campaign to Abolish Nuclear Weapons (ICAN), a worldwide network of nongovernmental organizations that pushed for the adoption of the nuclear weapons ban treaty, and said the spirit of the hibakusha "is spreading through the world."

Matsui also expressed hope for the easing of tensions on the Korean Peninsula to proceed through "peaceable dialogue," as the U.S. and North Korea reached an agreement to denuclearize the peninsula in their summit in June.

On the other hand, the mayor pointed out, in an apparent reference to the U.S. administration of President Donald Trump and other world powers that, "certain countries are blatantly proclaiming self-centered nationalism and modernizing their nuclear arsenals, rekindling tensions that had eased with the end of the Cold War." Matsui criticized nuclear deterrence and nuclear umbrellas as flaunting "the destructive power of nuclear weapons and seeking to maintain international order by generating fear in rival countries" and urged world leaders to use reason and insight to abolish nuclear weapons.

The Hiroshima mayor regarded the nuclear weapons ban treaty as "a milestone along the path to a nuclear-weapon-free world," urging the government of Japan to play a role to help bring it into force. There was no expression in the mayor's speech directly asking Tokyo to sign or ratify the treaty, which requires ratification by at least 50 signatories to come into force but has been ratified by just 14 countries and regions.

Meanwhile, Prime Minister Abe said in his speech, "It is the duty of Japan, as the only country to have been hit with atomic bombs in wartime, to work tirelessly in pursuit of a world without nuclear weapons." But he emphasized that differences are emerging among countries on how to proceed with nuclear disarmament, and stated that Japan, under the Nuclear Non-proliferation Treaty, will "serve as a bridge between nuclear powers and non-nuclear states and lead international efforts."

The United Nations secretary-general urged in his speech delivered by Izumi Nakamitsu, high representative for disarmament affairs, that hibakusha continue to exert their "moral leadership" for the world to seek the abolition of nuclear arms.

Mayor Matsui and representatives of bereaved families of atomic bomb victims placed new lists of 5,393 victims whose deaths were confirmed over the past year, making the total number of atomic bomb victims

at 314,118, covered in 115 volumes of the lists. Those holding hibakusha certificates numbered 154,859 as of March this year, the lowest on record, while their average age stood at 82.06.
(Japanese original by Azusa Takayama, Hiroshima Bureau)

TEPCO stops sales of Fukushima pictures

August 9, 2018

Tepco halts sale of folders with Fukushima nuclear plant pictures

<https://mainichi.jp/english/articles/20180809/p2g/00m/0dm/003000c>

FUKUSHIMA (Kyodo) -- The operator of the crippled Fukushima nuclear plant has halted its sale of file folders with photos showing the current conditions of the complex due to public criticism, company sources said Wednesday.

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- **【Related】** Gov't decides against increasing compensation fund for nuclear disaster
- **【Related】** TEPCO eyes 1st contact with fuel debris in damaged nuke reactor from Oct.

"We received many views, including favorable ones. We will consider whether we can restart their sale (which began Aug. 1)," an official of the operator Tokyo Electric Power Company Holdings Inc. said. The folders, offered in a set of three for 300 yen (\$2.70), have pictures of the Nos. 1-4 units of the Fukushima Daiichi nuclear complex, stricken by the 2011 earthquake and tsunami disaster. The operator known as Tepco said it sold them at two convenience stores on the premises of the Fukushima complex after people involved in work to scrap the plant asked the company to sell souvenirs. Tepco said it does not make any profit on the folders. But there have been complaints from people who were offended by the folders. A Tepco official involved in the folder sale has said, "As there are very few opportunities to show the real situation of the Fukushima complex, we wanted people to become aware of it through these goods." In one of the world's worst nuclear crises, the Fukushima Daiichi plant on the Pacific coast suffered meltdowns at three of its six reactors, spewing radioactive materials in the surrounding environment. Decontamination and other efforts are under way to enable people who lived near the disaster-stricken plant to return to their hometowns, while Tepco struggles with massive compensation payments and cleanup costs stemming from the disaster.

Shimane 3

August 13, 2018

Japan's Chugoku Electric Asks Regulator To Assess Shimane-3

<https://www.nucnet.org/all-the-news/2018/08/13/japan-s-chugoku-electric-asks-regulator-to-assess-shimane-3>

Plans & Construction

13 Aug (NucNet): Japanese utility Chugoku Electric Power Company has asked the Nuclear Regulation Authority to assess the compliance of the unfinished Shimane-3 nuclear power plant with post-Fukushima revised safety standards.

In February 2018, Chugoku Electric announced plans to apply for permission to begin operation of **Shimane-3, which is still under construction** in Shimane Prefecture, southwest Japan.

Chugoku Electric said at the time it would seek to obtain the consent of both the prefecture and local municipalities before filing an application for an operational permit with the NRA.

According to the Japan Atomic Industrial Forum, construction of the 1,325-MW advanced boiling water reactor unit is “almost complete”. Construction began formally in 2007.

Shimane-3 was scheduled to come online in 2012 but all reactors in Japan were shut down and new build projects suspended following the March 2011 accident at Tokyo Electric Power Company’s Fukushima-Daiichi nuclear station.

The NRA’s revised safety standards came into force in July 2013.

"That's how dangerous the Tokyo Olympics are"

August 13, 2018

Olympic heat wave fears: What steps can Tokyo take?

<https://www.japantimes.co.jp/news/2018/08/13/reference/olympic-heat-wave-fears-steps-can-tokyo-take/#.W3Kj68IyWos>

by Tomohiro Osaki

Staff Writer

Japan has become well-known for its *omotenashi* (hospitality), with the concept being part of Tokyo’s pitch when it bid to host the 2020 Olympics.

But this year’s record heat wave, which has so far killed more than 100 people and led to tens of thousands more being rushed to the hospital, has raised concern that some foreign visitors to the games may not find them as hospitable as organizers had hoped.

Fears have been rekindled over what experts say will likely be a sweltering 2020 Games, which will start on July 24 and finish on Aug. 9. Tokyo is now facing significant pressure to hammer out measures to combat the searing heat, including a potential revival of daylight saving time.

With the games just two years away, what can Tokyo do to minimize the risk of heatstroke? Could it possibly push the event back to a cooler time to avoid the hottest period of the year? Here is a look at those and other questions:

Why are the 2020 Games being held in midsummer in the first place?

To be fair, it’s not like Tokyo had much of a choice. The July-August window was a precondition set by the International Olympic Committee (IOC) as it sought aspiring hosts.

When Tokyo last hosted the Summer Olympics in 1964, the two-week event kicked off on Oct. 10.

But today, an October Olympics is considered difficult because it would compromise the IOC’s bid to capitalize on broadcasting rights paid by TV stations — one of its biggest revenue sources. The IOC wants

to avoid having the quadrennial games coincide with other popular sporting events, such as the Major League Baseball playoffs and the European soccer season in the fall, due to fears of splitting up airtime and TV ratings.

A case in point: Doha, Qatar, known for its scorching summer weather, also bid for the 2020 Olympics. It was granted special permission by the IOC to pitch an October Olympics — only to be knocked out in the first round. The committee's evaluation report, according to Reuters, later admitted that in the event of an autumn Olympics, broadcasters would have difficulties "attracting the same audience levels" as they could when the games are held in July and August.

Is it possible to move the Olympic schedule to a cooler time?

A spokesman for the Tokyo Olympic Organizing Committee said the "probability is extremely low" that the July-August period could be postponed, because it would be seen as Tokyo violating the original arrangement with the IOC. Such a major rethink, if at all possible, would necessitate Tokyo negotiating with the IOC for approval, said the spokesman, who declined to give his name per internal policy.

Any attempt to push the event to a cooler period risks exposing Tokyo to global backlash given that the city advertised its summer climate as "mild" and "ideal" for athletes to perform when it bid for the 2020 Games.

"Anyone with common sense knows that Tokyo during this period of time is far from being ideal for sporting activities," said Makoto Yokohari, a professor of urban engineering at the University of Tokyo. "I just have to wonder on what basis they called Tokyo's weather mild and athlete-friendly. ... That's an impossible assessment."

How dangerous is it to hold the games in the middle of summer?

Experts say the heat presents the risk of a life-threatening heatstroke.

Yokohari has conducted a study of temperature and rainfall records from 1971 to 2000 for all of the Olympic host cities. Although Tokyo trailed behind Athens and Atlanta in terms of heat, its abundant rainfall suggests it is "the hottest and the most humid" host, the professor said.

Akio Hoshi, a professor of sports and health sciences at Tooin University of Yokohama, agrees. Hoshi's team analyzed 50 years' worth of Meteorological Agency data to ascertain what is called the "wet-bulb globe temperature (WBGT)" — a comprehensive heat index based on temperature, humidity, wind speed and sunlight — from July 24 to Aug. 9 each year.

His study, which covered a period from 1964 to 2014, revealed that Tokyo's WBGT has risen by an average 0.4 degree per year in recent years and is projected to hit as high as 34 degrees in 2020. That's well beyond the 31-degree threshold flagged by the Environment Ministry as extremely dangerous, and the level at which all exercise should be suspended in principle. A sporting event coupled with the sizzling heat heightens the risk of life-threatening heatstroke, Hoshi said.

"I think we've come to a point where not only the Olympics but other midsummer sporting events, such as the Koshien baseball tournaments and nationwide high school championships, must be reconsidered," he said.

What about daylight saving time?

Recent weeks saw debate flare up anew over whether Japan should introduce daylight saving time in a bid to minimize the impact of the heat.

According to Kyodo News, Prime Minister Shinzo Abe instructed his ruling Liberal Democratic Party last week to look into the possibility of introducing daylight saving time — with a view to moving the clock two hours forward during the games — at the request of Yoshiro Mori, president of the Olympic organizing committee and a former prime minister.

Despite Abe's apparent eagerness, however, the government remains split, with Chief Cabinet Secretary Yoshihide Suga repeatedly striking a negative note. Changing the clock "would impact the lives of the public.

There are only two years left before the games, too," Suga told a regular news briefing last week.

Experts agree that adopting daylight saving time would be effective in combating the heat — if not a game-changer.

"Under the current plan, the marathon is slated to kick off at 7 a.m. ... which is seen as the earliest schedule possible given the time of transportation and preparation needed by volunteers," Yokohari said. "But saving (an hour of) daylight, for example, would allow the race to begin at effectively 6 o'clock. That's better than doing nothing," he added.

Japan experimented with daylight saving from 1948 to 1951 under the U.S. Occupation. But the custom came to an end amid complaints that daylight saving led to farmers working longer hours. Concerns this time around are more varied.

"Compared with the last time we did it, we have computers now ... There is just too much preparation necessary," a senior government official said.

What other measures are being discussed?

Popular ideas include applying special anti-heat coatings to road surfaces, pruning and growing trees along sidewalks to offer more shade, setting up mist-spraying equipment and moving forward the start time for some events.

An experiment conducted by the Tokyo government Monday has shown that water sprinkling would keep temperatures on the street surface up to around 5 degrees cooler than the surrounding air temperature.

The organizing committee is even looking into what it touts as a "cool sharing" initiative, where building owners along the marathon course would be asked to keep their doors open to offer a bit of cooler air.

The cool-sharing initiative is a "last-resort" measure that basically relies on the goodwill of volunteers and is far from being a problem-solver — and so are other measures eyed by officials, Yokohari said.

"These are hardly effective enough to offset the possibility of heatstroke," he said.

As a fundamental solution, the professor suggested relocating venues for high-risk sports, such as marathons, to cooler places like Hokkaido or Nagano Prefecture, citing an ongoing plan to hold some softball games in Fukushima Prefecture in lieu of Tokyo.

Current measures under consideration are "not entirely useless," Yokohari said. "They are helpful to a certain degree, but even if all of them are implemented, the fact still remains that Tokyo's heat level will keep hovering within a 'danger zone.' "

"In other words, that's how dangerous the Tokyo Olympics are."

Nuke tie-up?

August 22, 2018

4 firms in talks over nuclear business tie-up

https://www3.nhk.or.jp/nhkworld/en/news/20180822_20/

Four Japanese companies are negotiating a possible tie-up in the nuclear power business. They are utilities Tokyo Electric Power Company and Chubu Electric Power Company, and electronic makers Hitachi and Toshiba.

People familiar with the matter say the 4 firms are in talks on a future tie-up in the operation of nuclear power plants, their construction and maintenance.

The 4 companies are all involved in operating or manufacturing of boiling water reactors, which are the same type of reactors at the Fukushima Daiichi nuclear power plant.

The plant is in the process of decommissioning after a disaster occurred there in March 2011 following a powerful earthquake and tsunami.

Hitachi and Toshiba are having difficulties to gain new orders for building nuclear plants in Japan, where the Fukushima disaster has effectively halted their construction.

The 2 makers are also facing a tougher business environment overseas, where stricter safety requirements have pushed up construction costs for nuclear power plants.

The 4 companies are discussing multiple plans, including one that calls for merging their nuclear businesses in the future.

However, their talks may not go smoothly as TEPCO is engaged in decommissioning the Fukushima plant and the 4 firms have different stances on overseas business.

Time to choose renewables



A large-scale solar power plant that started operation in Niigata in July (Provided by Orix Corp.)

August 27, 2018

EDITORIAL: Time is now to turn renewables into 'mainstay' energy sources

<http://www.asahi.com/ajw/articles/AJ201808270016.html>

A large-scale solar power plant that started operation in Niigata in July (Provided by Orix Corp.)

We know which direction we should be going.

The problem is how we should go about getting there. It is time to be working out strategies and putting them into practice over the years to come.

The latest edition of Japan's basic energy plan, which was approved by the government in July, includes a passage saying that efforts should be made to turn renewable energy options, such as solar and wind power, into "mainstay" power sources.

A substantial expansion in the use of renewables, which does not involve carbon dioxide (CO₂) emissions, is indispensable for achieving the double goals of fighting global warming and becoming less reliant on nuclear power. The use of renewable energy sources also comes with the big advantage of domestic availability for Japan, a country poor in natural resources.

Many other nations are already speeding up efforts in that direction on the back of technological innovations and a sharp drop in costs. It is all too natural for Japan to follow that global trend.

The latest plan, however, also appears indecisive in some respects. For example, its future introduction target for renewables remains unchanged from a previously stated goal.

A mountain of challenges remains to be solved to make sure that the whole shebang will not end up as mere slogans. Ideas on how they could be solved should be sought both in Japan and abroad, and the undertaking should be sped up across the entire society.

NUMERICAL GOAL SHOULD BE RAISED

The latest plan, revised for the first time in four years, says in one passage, "We should address challenges squarely toward the goal of introducing renewable energy options in large scales and turning them into mainstay power sources that are self-reliant in economic terms."

Given that, the plan is too halfhearted in sticking to the previous goal of having renewable energy account for 22 to 24 percent of the total power to be generated in fiscal 2030.

The share of renewables has already grown to some 15 percent in Japan. The possibility has emerged that the numerical goal will be achieved ahead of the initially planned date.

Many European nations are aspiring to even higher levels. For example, the ruling coalition of Germany has agreed on setting a target share of 65 percent for renewables in 2030.

Japan should also pursue possibilities for raising the share of renewables to a maximum.

The first thing to be done in that respect is to lift the existing restrictions on the use of the power grid, which are practically serving as a barrier against power generated from renewable energy sources.

Renewable energy power producers often hesitate about working out development plans because major electric utilities, which own the power grid equipment, explain to them that they don't have enough capacity in their transmission capability.

Some leeway, in fact, is reserved in their transmission capacity, including a part that is kept unused in providing against a time of technical failures. The industry ministry and the power industry are discussing possible improvements to the operation of the power grid.

There is a pressing need for developing fair and transparent rules to allow a maximal use of the equipment that is currently available.

PAIR OF DRAWBACKS TO OVERCOME

Overcoming a pair of drawbacks is key to the goal of getting renewable energy options on a stable track of expansion. One is the cost of power generation, which remains higher than in other countries, whereas the other lies in the instability of the power supply potential, which varies depending on the weather.

The slowness of cost reduction in Japan is partly attributable to the feed-in tariff (FIT) system, which was introduced in 2012. The system has certainly been a driving force behind a spread of renewable energy sources, but experts have also pointed out that it is helping to allow the renewables industry to preserve its high-cost structure.

The FIT system is an assistance measure for guaranteeing a certain level of income to renewable energy power producers. The cost for doing so is added on top of electricity rates in the name of a levy, and the total burden borne by the public has grown to some 2 trillion yen (\$18 billion) a year. The system should inevitably be reviewed to keep that amount to a minimum.

The essential thing is to prompt competition and efficiency improvement on the part of power producers while at the same time ensuring the potential for growth will not be ruined. There are a variety of ways to do so, such as expanding a mechanism for purchasing electric power from a producer that has presented a lower price during a bidding process.

There should perhaps also be discussions on shifting the focus of policy initiatives in the coming years from direct subsidization through the FIT system to carbon tax, to be imposed on CO2 emissions, and to emissions trading. The use of market mechanisms would help allow renewables to become self-reliant at an earlier date.

In the meantime, how to level out variability in the output of wind and solar power will emerge as a major challenge as their output grows. There is no choice, for the time being, but to rely mostly on thermal power for that purpose, but the use of other means is indispensable for reducing CO2 emissions.

More specifically speaking, a variety of options are available, including the use of storage batteries and the development of a power grid that allows electric utilities to supply power to each other on a broader, regional scale. Different technological means should be assessed carefully for their extent of progress and economic efficiency so the most effective components can be combined and put to use.

DIFFERENT ROLES FOR PUBLIC, PRIVATE SECTORS

The effort to turn renewables into mainstay energy sources would take decades to complete. Sorting out the roles to be played by the public and private sectors and allowing a broad array of actors to work together are essential in overcoming hurdles and pressing ahead with that effort.

An important task to be done by the central and local governments is to develop an environment that allows private-sector players to actively engage in research, development and investments. Apart from designing the FIT and other basic systems, there is also a mountain of other things to do, such as working out rules for the use of offshore areas as wind farms and providing information on land plots that are suitable for hosting renewable power plants.

Businesses, which are the main players of action on the ground, should be ready to quickly seize business opportunities and pinpoint social agenda. Renewables account for a core part of energy-related investments overseas, thereby giving rise to a gigantic growth market.

There has been a noteworthy move in Japan's industrial circles, which appeared to be starting a bit late. More than 100 entities, including major businesses, local governments and other groups, in July set up the Japan Climate Initiative, a platform for working together to help spread the use of renewables and disseminate information on them. Its corporate participants come from a broad array of industrial sectors such as manufacturing, financing and construction.

An attempt to reshape society into one that is sustainable on the fronts of energy and the environment has now turned into a global swell and is generating new development opportunities. That momentum should be allowed to infiltrate public administrative bodies, businesses, consumers and other parties so that it will serve as a driving force for opening up a new age to come.

--The Asahi Shimbun, Aug. 26

Kyushu Electric to restrict renewables ?



A large-scale solar power plant that started operation in Niigata in July (Provided by Orix Corp.)

August 29, 2018

Kyushu Electric mulls cutback on solar power

<http://www.asahi.com/ajw/articles/AJ201808290050.html>

THE ASAHI SHIMBUN

FUKUOKA--The sun could be setting on renewable energy in Kyushu, as solar power plant operators face the prospect of being forced to suspend their successful operations to make way for resurgent nuclear power.

Kyushu Electric Power Co. is considering using its right to order solar power operators to stop production temporarily, possibly, next month because of a surplus of power resulting from the resumption of operations at the utility's four nuclear reactors on the main island of Kyushu. Unlike renewables, nuclear energy has the status as one of Japan's top priority power sources.

The order would be the first of its kind on a main island in the nation if the utility proceeds with it.

Solar power generation is thriving in Kyushu partly because the region, which is situated in the south in the nation, enjoys more sunlight hours and less snow than others.

Buoyed by government subsidies to promote renewables in the wake of the 2011 Fukushima nuclear disaster, solar quickly spread in Kyushu.

At some points during the year, solar power has provided the vast majority of energy used in Kyushu. For example, it accounted for more than 80 percent of electricity used in the region as of 1 p.m. on April 29 during the Golden Week holidays.

Now, the amount of power generated by solar energy that Kyushu Electric buys from operators under the feed-in-tariff system is growing at a pace of 50 megawatts a month on average.

But the spread of renewables' growth has a drawback, according to utilities.

A power supply in excess of demand causes fluctuations in electric frequency that could result in power outages across a broader area.

Fukuoka-based Kyushu Electric has tried to coordinate supply and demand by curtailing the operation of thermal power plants and producing power at night with water pumped up during the day by solar energy.

When such coordination becomes difficult, electric power companies can issue a directive for solar power operators to halt their operations temporarily under a rule set by the government.

Kyushu Electric has already turned to this option in remote islands such as Ikishima island, Nagasaki Prefecture, and Tanegashima island, Kagoshima Prefecture.

The option of output control looms large in spring and autumn, the two seasons when demand for power to use heaters and air conditioners remains low, but solar power output soars due to clear weather on many days.

When factories and company offices are closed on holidays in those seasons, a need for output control becomes more likely.

"We may issue a directive for output control this autumn," a Kyushu Electric official said.

When the company decides on output control of solar energy, based on the projected power demands by taking into account data on weather and other factors, it is supposed to notify solar energy operators via e-mail by the evening before.

Kyushu Electric is now capable of supplying more power through conventional sources with the restart of all its four nuclear reactors--two units at its Sendai nuclear plant in Kagoshima Prefecture and another two at its Genkai plant in Saga Prefecture.

Renewables are the first energy sources to be subjected to output control under the government rule.

Nuclear energy is the last, because the government designates it a "base load power source," alongside hydraulic power and geothermal power. The government says those sources are relatively inexpensive to produce power and their output is stable.

Experts say one solution to fully utilize renewable energy output is to strengthen tie-ups between regional utilities so that a surplus of power in one region can be used elsewhere.

Projects to reinforce the capacity of power lines between utilities are getting under way for that purpose.

But electric power companies on the receiving end are not eager to receive power from other utilities, because it means their own power stations may then experience drops in the rates of their output.

"We need to draw up rules to coordinate between utilities, including how to share the financial cost, and to optimize the use of renewables beyond regional boundaries," said Yukari Takamura, professor of environmental law at Nagoya University, who is well-versed in power generation systems.

(This article was written by Yuji Yamashita and Rintaro Sakurai.)

Japan's Kyushu Electric may restrict renewable energy supplies after nuclear ramp-up

<https://www.reuters.com/article/japan-nuclear-renewables-restrictions/update-1-japans-kyushu-electric-may-restrict-renewable-energy-supplies-after-nuclear-ramp-up-idUSL3N1VK2J8>

By Osamu Tsukimori - August 29, 2018

TOKYO, Aug 29 (Reuters) - Kyushu Electric Power Co may start restricting third-party supplies of solar energy after it restarts a fourth nuclear reactor, the company said on Wednesday, underscoring the risks to a government push to boost renewable energy.

Japan's fifth-biggest utility by sales plans to restart the No. 2 reactor at its Sendai station later on Wednesday, giving Kyushu the most nuclear generation since the 2011 Fukushima disaster led to the shutdown of Japan's atomic power sector.

The move could lead to possible restrictions on the purchase of renewable energy as early as next month, a Kyushu spokesman told Reuters, declining to be identified because of company policy.

“Output restrictions can occur when power demand is low and solar power generation is high, such as in the autumn, spring or at the year-end and beginning of the year,” the spokesman said.

The Fukushima disaster prompted a shift in Japan toward renewable energy, backed by mandatory preferential rates for solar, wind and other supplies.

Introduced in 2012, the preferential rates, known as feed-in-tariffs, were at the time among the highest in the world, sparking a rush of investments by startups and other companies.

Only one of Japan’s other nine nuclear operators, Kansai Electric Power Co, the country’s second-biggest utility by sales, so far has reactors running.

However, the slow return of nuclear, which once accounted for 30 percent of Japan’s electricity generation, is now threatening the once-guaranteed income for operators of renewables.

The government changed regulations in 2015, allowing the old utilities, which control the country’s transmission grids, to restrict supplies of renewable energy from their solar or wind farms if they deem it necessary to maintain grid stability.

The orders can be made at short notice and without having to pay compensation.

Solar power has grown particularly fast on the island of Kyushu, where Kyushu Electric operates, because of plentiful sunshine and available land.

“Given the increase in solar capacity in Kyushu it is not necessarily a surprising event and we have seen this type of thing happening in Europe where renewables have grown fast,” said Professor Yoh Yasuda, project professor of renewable energy economics at Kyoto University.

Kyushu had 8 gigawatts of solar capacity connected to the grid at end-June, just shy of the 8.2 gigawatts that a government committee estimated in 2016 would be the maximum the utility could take without curtailment.

Should Kyushu start restricting supplies the curtailment may affect as much as 4.2 gigawatts of the available capacity, the spokesman said, adding suppliers would be given a day’s notice. (Reporting by Osamu Tsukimori; writing by Aaron Sheldrick; editing by Richard Pullin)

Fukushima food ban in Taiwan subject to referendum?

August 28, 2018

Taiwan to hold referendum on lifting Fukushima food ban in November

<https://mainichi.jp/english/articles/20180828/p2a/00m/0na/027000c>

TAIPEI -- Taiwan’s largest opposition party Kuomintang has announced that it has collected some 470,000 signatures supporting a referendum on whether to lift a ban on the import of food products from five Japanese prefectures, including Fukushima, imposed after the 2011 Fukushima No. 1 nuclear plant disaster.

- **【Related】** Tokyo's road to 'Reconstruction Olympics' not an easy one
- **【Related】** Hamburger event using Fukushima ingredients held in Tokyo
- **【Related】** Amount of food with radioactive cesium exceeding gov't standards dropping: study

The number is far more than the 280,000 legally required to hold a referendum, and it is most likely that one will be held on Nov. 24 in tandem with general local elections.

Taiwan has banned foodstuff from the prefectures of Fukushima, Ibaraki, Tochigi, Chiba and Gunma in the northern and eastern parts of Japan, and the Kuomintang supports the ban.

A national referendum must have a turnout rate of at least 25 percent for the result to be valid, but this hurdle is likely to be cleared if the voting is done alongside the local elections. If voters back the ban, it would be extremely difficult for the administration of Tsai Ing-wen to ignore the outcome and Japan-Taiwan relations would suffer substantially as a result.

Behind the referendum move is a political rivalry between the Kuomintang and the ruling Democratic Progressive Party (DPP) headed by Tsai. The opposition is stepping up attacks on the ruling party in a bid to win the local elections and build political momentum toward the 2020 presidential election.

The Kuomintang has launched a negative PR campaign against food items from Fukushima and the other prefectures because the Tsai administration is positive about lifting the import ban. The opposition called the Japanese products "nuclear food," meaning contaminated by the nuclear accident, and accused the government of ignoring people's food safety concerns. A person linked to the DPP lamented that the issue is "being used in a political fight."

The government of Japan has repeatedly urged Taiwan to lift the import ban, saying the safety of its food items is scientifically proven. However, the Tsai administration is hesitant about rushing a decision on resuming imports as it faces faltering approval rates and the issue could trigger explosive opposition from some voters.

(Japanese original by Shizuya Fukuoka, Taipei Bureau)

What MOX program?

September 3, 2018

<https://www.japantimes.co.jp/news/2018/09/03/national/japanese-utilities-ended-funding-nuclear-fuel-reprocessing-2016-putting-mox-plans-doubt/#.W45GDsLLipo>

Japanese utilities ended funding for nuclear fuel reprocessing in 2016, putting MOX program in doubt

Kyodo

Utilities that operate nuclear power plants stopped funding the reprocessing of nuclear fuel in fiscal 2016, their financial reports showed Sunday, a step that may affect resource-scarce Japan's nuclear fuel recycling policy.

The 10 utilities, including Tokyo Electric Power Company Holdings Inc. and Japan Atomic Power Co., apparently halted allocating reserve funds for reprocessing costs due to the huge expenses linked to building the reprocessing facilities, sources said.

The government, along with the power companies, has been pushing for the reuse of mixed-oxide, or MOX, fuel, which is created from plutonium and uranium extracted from spent fuel.

While Japan has not changed its policy on spent fuel reprocessing, the outlook for it has remained uncertain since the 2011 Fukushima disaster. At the same time, the government's latest energy plan in July also stated for the first time that disposal of spent MOX fuel as waste can be considered.

If MOX fuel cannot be reprocessed, nuclear fuel can only be reused once.

For the reprocessing of spent MOX fuel, the utilities had allocated about ¥230 billion in reserves as of March 2016.

Currently, only two reactors at Kansai Electric Power Co.'s Takahama power plant, one reactor at Shikoku Electric Power Co.'s Ikata plant and one reactor at Kyushu Electric Power Co.'s Genkai power plant use MOX fuel in so-called pluthermal power generation.

As Japan has decided to cut its stockpile of plutonium, the government and utilities aim to increase plants for pluthermal generation. But if spent MOX fuel is not reprocessed, it would be considered nuclear waste, raising concerns over how to deal with it.

Japan Nuclear Fuel Ltd. — in which power companies have invested — has been pursuing the construction of a spent nuclear fuel reprocessing plant in northeastern Japan as well as a MOX fuel fabrication plant, with the costs coming to about ¥16 trillion.

But a series of problems has resulted in their delay. When operational, the Rokkasho plant in Aomori Prefecture, key to Japan's nuclear fuel cycle policy, can reprocess up to 800 tons of spent nuclear fuel per year, extracting about 8 tons of plutonium.

With this setback, if new MOX reprocessing plants are to be built, it would be hard to secure further funding.

Safety vital in scrapping Monju

August 31, 2018

EDITORIAL: Safe and steady progress needed to finally end Monju debacle

<http://www.asahi.com/ajw/articles/AJ201808310018.html>

The Japan Atomic Energy Agency (JAEA) on Aug. 30 started work to remove nuclear fuel from the Monju prototype fast-breeder reactor in the first stage of decommissioning the trouble-prone experimental reactor in Tsuruga, Fukui Prefecture.

It is the first step in a long and grueling process that will take three decades. **Safe and steady progress is vital for achieving the goal.**

Monju burns uranium-plutonium mixed oxide (MOX) fuel and is cooled by liquid sodium, instead of water. Monju worked only very briefly during the more than 20 years of its life, and the government decided to pull the plug on the reactor at the end of 2016.

While the work to remove fuel continues, the liquid sodium coolant will be extracted from Monju, and related equipment will be dismantled. The reactor building will then be demolished and removed.

There have only been 10 or so cases of decommissioning a fast reactor in the world. These rare projects have been carried out in such countries as the United States, Britain and France. Maximum caution is in order to ensure safety in the process.

Plutonium is a material used to make atomic bombs. To avoid causing unnecessary concerns about nuclear proliferation, the operator should adequately share information about fuel transfer work with the International Atomic Energy Agency (IAEA).

According to the JAEA's plan, 530 fuel assemblies will be removed from the reactor core and the storage tank outside the reactor, which are filled with sodium coolant. The fuel assemblies will be cleaned before being transferred to an on-site water-filled storage pool. This stage is scheduled to be completed by fiscal 2022.

Since sodium is not transparent, it is impossible to see the fuel assemblies submerged in liquid sodium while retrieving them.

Only two fuel assemblies have ever been transferred to the pool at the Monju plant. There are only about 10 workers who have experienced the task.

During a test operation eight years ago, refueling equipment fell into the reactor vessel. Work to remove fuel was originally scheduled to begin in late July, but the start has been delayed by one month due to a series of troubles with related equipment.

A rigorous system of checks and double-checks is indispensable for ensuring steady progress in the project.

Removing fuel is not the only part of the process that requires great care and caution. Sodium reacts violently with water or air. A sodium leak accident at Monju in 1995 caused a fire. Radioactive sodium requires particularly cautious handling.

The JAEA is known for its problem-plagued history. It has been criticized for poor safety consciousness and lax discipline.

While scrapping Monju, the JAEA will also decommission its facility to extract unused fissionable material, plutonium to be exact, from spent nuclear fuel in Tokai, Ibaraki Prefecture, in a 70-year-long process.

That means the JAEA will have to maintain high levels of alertness, attentiveness and discipline for a very long period of time.

Some 1.1 trillion yen (\$10 trillion) has already been spent on the Monju project, and decommissioning the reactor will cost at least 375 billion yen. Most of the money has been or will be paid by taxpayers.

No sharp increase in the cost of decommissioning due to glitches or human errors is acceptable.

It should not be forgotten that the process also poses one common and sticky challenge involved in decommissioning any nuclear reactor.

No decision has been made on how to dispose of the nuclear fuel, sodium and other radioactive waste that will be produced in the decommissioning process.

Instead of postponing actions to tackle this challenge, the government should immediately embark on serious efforts to find a solution to this tough question.

Using schools to recup silver

September 2, 2018

Criticism grows against gov't 'urban mines' plan for Tokyo 2020 medals

<https://mainichi.jp/english/articles/20180902/p2a/00m/0na/012000c>

TOKYO -- Yet another government program linked to the 2020 Tokyo Games is facing criticism: extracting silver from used mobile phones and computers for Olympic and Paralympic medals.

- **【Related】** Gov't faces criticism for 'mobilizing' students as volunteers for 2020 Tokyo Olympics
- **【Related】** Daylight saving time causes more trouble than benefits, say critics
- **【Related】** Officials spray water on Olympic course sidewalk in trial to beat the heat

Critics say the collection drive is reminiscent of a World War II government order to the public to donate metal items to make aircraft and bullets. They also lambasted the plan as a product of groupthink in the same vein as other games-related government initiatives, such as heat countermeasures, introduction of daylight saving time, and "mobilization" of student volunteers.

This fall, the Ministry of the Environment will urge some 230 municipalities hosting Olympic and Paralympic athletes to cooperate, and install device collection boxes of its own at public elementary and junior high schools.

According to the ministry, about 40 kilograms of gold, 4,900 kilograms of silver and 3,000 kilograms of copper are needed to make some 5,000 medals for the Tokyo Games. There is already enough gold and copper thanks to a collection drive organized at NTT DoCoMo mobile phone shops and post offices. But stocks of silver, which is in particular need because the metal is used as the basis for gold-plated medals, are insufficient, according to ministry officials.

However, there is a growing tide of Twitter commentary critical of the plan to get that silver. "Now they want us to provide the metals. It's creepy," one tweet said, in an apparent reference to the government's wartime metal donation drive. **The education ministry's effort to have universities call off classes during the games so that students can serve as volunteers has similarly been compared to war support efforts.**

A proposal to introduce daylight saving time to avoid the summer heat during competitions has also been attacked as akin to wartime mobilization because it would place an enormous burden on computer programmers required to adjust software and force workers to stay on the job longer. A call to ease the heat by spraying water in certain neighborhoods was likened to the desperate wartime plan to counter an Allied invasion of the Japanese home islands with bamboo spears.

Scholars and academics are particularly angry at the use of schools and students for the projects. "The mentality to utilize school organizations is really scary," one tweet said, while another commented, "Don't increase the burden on people on the front line of education."

The amount of precious metals contained in a used electronic device is negligible, but a huge number of these items, which are said to be lying dormant in people's homes, are called "urban mines." The project to "dig" out the metals to make Tokyo 2020 medals was received warmly when it was announced two years ago.

Komei Harada, an honorary researcher at the National Institute for Materials Science who proposed the idea, said the project team in charge of making the medals had failed to set up a system or create an atmosphere allowing the public to cooperate easily. According to Harada, recycling small home electronics produced 2.3 metric tons of silver in 2016. "What is needed for the medals is to double that figure, and that amount can be collected if people are willing to support the drive," he said.

However, unlike the 1964 Tokyo Games, the upcoming Olympics and Paralympics is tied to commercial sponsors, and it is difficult for municipal governments and recycling companies that are not games' sponsors to use the Olympics and Paralympics name to promote precious metals collection. Under the environment ministry plan, however, elementary and junior high schools will have to foot the bill. "People may come to dislike the games or recycling," said a worried Harada.

Some internet commenters assert that buying silver is cheaper than "urban mining." A Tokyo Games public relations official countered this by saying that it is not a matter of cost. **"The medal project was designed to promote a sense of participation and the culture of recycling,"** explained the official.

But what is the organizing committee going to do if there is simply not enough silver? "It's not like we cannot make medals. There is an established system for procurement," the official said, but did not venture to detail how the system works, saying, "We cannot answer a hypothetical question."

(Japanese original by Satoko Nakagawa, General Digital News Center)

Radioactive water in Fukushima: What to do ?

<image: https://img.over-blog-kiwi.com/1/22/53/68/20180909/ob_779ac1_tanted-water-fuku.JPG>
September 6, 2018

EDITORIAL: All options need to be weighed for Fukushima plant tainted water

<http://www.asahi.com/ajw/articles/AJ201809060020.html>

The government has held public hearings on plans to deal with growing amounts of radioactive water from the ruined Fukushima No. 1 nuclear power plant.

The hearings, held in Tomioka and Koriyama in Fukushima Prefecture as well as in Tokyo, underscored the enormous difficulty government policymakers are having in grappling with the complicated policy challenge.

The crippled reactors at the plant are still generating huge amounts of water contaminated with radiation every day. Tons of groundwater percolating into the damaged reactor buildings as well as water being injected into the reactors to cool the melted fuel are constantly becoming contaminated.

Almost all the radioactive elements are removed from the water with a filtering system. But the system cannot catch tritium, a mildly radioactive isotope of hydrogen.

The tritium-contaminated water is stored on-site in hundreds of large tanks. As the number of tanks has reached 900, the remaining space for them is shrinking and expected to run out by around 2020, according to the government.

Clearly, time is growing short on deciding what to do about the problem.

A task force of the Ministry of Economy, Trade and Industry has considered five options, including release into the Pacific Ocean after dilution, injection into deep underground strata and release into the air after vaporization. The group has concluded that dumping the water into the ocean would be the quickest and least costly way to get rid of it.

This is seen as the best option within the government.

Tritium is a common radioactive element in the environment that is formed naturally by atmospheric processes. Nuclear power plants across the nation release tritium produced in their operations into the sea according to legal safety standards.

But these facts do not automatically mean that releasing the tritium-laced water into the sea off Fukushima is a good approach to the problem.

Local communities in areas affected by the 2011 nuclear disaster are making strenuous efforts to rebuild the local fishing and agricultural industries that have been battered by the radiation scare. There are still countries that ban imports of foodstuffs produced in Fukushima Prefecture.

Local fishermen and other community members have every reason to oppose the idea of releasing tritium into the ocean. They are naturally concerned that the discharge would produce new bad rumors that deliver an additional blow to the reputation and sales of Fukushima food products.

Unsurprisingly, most of the citizens who spoke at the hearings voiced their opposition to the idea.

Moreover, it was reported last month that high levels of radioactive strontium and iodine surpassing safety standards had been detected in the treated water.

The revelation has made local communities even more distrustful of what they have been told about operations to deal with the radioactive water.

It is obvious that the hearings at only three locations are not enough to sell any plan to cope with the sticky problem to skeptical local residents. The government needs to create more opportunities for communication with them.

In doing so, the government should show a flexible stance without adamantly making the case for the idea of releasing the water into the sea. Otherwise, there can be no constructive debate on the issue. It can only hope to win the trust of the local communities if it gives serious consideration to other options as well.

During the hearings, many speakers suggested that the water should be kept in large tanks until the radioactivity level falls to a very low level.

The pros and cons of all possible options, including this proposal, should be weighed carefully through cool-headed debate before the decision is made.

Repeated discussions with fruitful exchanges of views among experts and citizens including local residents are crucial for ensuring that the final decision on the plan will win broad public support.

The government and Tokyo Electric Power Co., the operator of the Fukushima plant, should disclose sufficient information for such discussions and give thoughtful and scrupulous explanations about relevant issues and details.

The government, which has been promoting nuclear power generation as a national policy priority, has the responsibility of building a broad and solid consensus on this problem.

--The Asahi Shimbun, Sept. 6

Confirmed: Death of nuclear worker due to exposure (2)

September 6, 2018

In a First, Japan Says Fukushima Radiation Caused Worker's Cancer Death

<http://www.asahi.com/ajw/articles/SDI201809069818.html>

By MOTOKO RICH/ © 2018 The New York Times

TOKYO--More than seven years after a devastating earthquake and tsunami triggered meltdowns at a nuclear power plant in Fukushima, Japan acknowledged for the first time this week that a worker died from cancer after being exposed to radiation.

Japan's Ministry of Health, Labor and Welfare said the man, who was not identified, had worked mostly at the Fukushima Daiichi plant over 28 years and had died of lung cancer, according to Japanese news media reports.

Three years ago the government awarded workers' compensation to a man who developed leukemia while working on the Fukushima cleanup, but this week marked the first acknowledgment that exposure to radiation at the site caused a death. The government has acknowledged that three other Fukushima workers developed leukemia and thyroid cancer after working on the plant cleanup. About 5,000 workers labor at the site daily.

The ministry said the man who died worked for a subcontractor to Tokyo Electric Power Co., the plant's operator. He was in his 50s and was diagnosed with lung cancer in 2016. His family did not wish his precise date of death to be released, according to the health ministry.

According to the government, the man was responsible for measuring radiation at Fukushima Daiichi and wore a protective jumpsuit and a full face mask while working. The ministry said he had been exposed to a lifetime dose of 195 millisieverts of radiation after working at Fukushima and other plants.

Safety regulators say workers can be safely exposed to up to 50 millisieverts a year, but if a worker with an accumulated 100 millisieverts develops an illness after five years of exposure, that can be ruled an occupational injury. According to an expert cited by the Mainichi Shimbun, a daily newspaper, the man had been exposed to 74 millisieverts at the Fukushima plant since the accident.

Fukushima has faced a long and painful aftermath from the 2011 disaster, with thousands of people evacuated for years, and the government and Tokyo Electric struggling to cope with a radioactive waste cleanup on an unprecedented scale.

Experts have been divided on whether exposure to radiation can be linked to other illnesses, including thyroid cancer, among children living near the plant. The government has said that the evacuation caused more fatalities than radiation exposure. Its Reconstruction Agency determined this year that stress, suicide and the interruption of medical care related to the nuclear crisis and evacuation had caused 2,202 deaths.

According to a report in the Asahi Shimbun, a daily newspaper, 17 Fukushima plant workers have filed for workers' compensation with the health ministry. Four have been granted compensation, and five claims have been rejected. Another five are pending, and two have withdrawn their claims.

Courts have repeatedly found the government and Tokyo Electric negligent in failing to prevent the disaster. Three of the reactors at Fukushima Daiichi, which is on the eastern coast of Japan, melted down when 32-foot waves overpowered the plant's protective sea walls and flooded buildings, destroying diesel generators that were designed to keep critical systems functioning in a blackout.

Suu Kyi in Fukushima

October 8, 2018

Myanmar's Suu Kyi visits organic farm in Japan's Fukushima Pref.

<https://mainichi.jp/english/articles/20181008/p2g/00m/0dm/002000c>

FUKUSHIMA, Japan (Kyodo) -- Myanmar leader Aung San Suu Kyi, currently in Japan for a regional summit, visited Fukushima Prefecture on Sunday to tour a farm that employs workers with various disabilities.

- **【Related】** Canada revokes Myanmar leader's honorary citizenship
- **【Related】** Suu Kyi says handling of Rohingya could have been better
- **【Related】** World criticism doesn't have Suu Kyi or Myanmar on the ropes

Some rural areas of Myanmar face a serious shortage of farm workers, and Myanmar is seeking solutions to ease the problem.

Suu Kyi visited Cocoroya farmers market and cafe in Izumizaki where she viewed the produce and toured the facility.

The farm grows a variety of vegetables organically and runs a small market selling its produce and a cafe there.

After touring the facility, Suu Kyi said she had learned a lot from her brief visit and expressed her appreciation as well as sympathy to the people of Fukushima, who have gone through difficult times since 2011 when a massive earthquake and tsunami and ensuing nuclear disaster hit the area.

Suu Kyi arrived in Japan on Friday to attend a regional investment forum on Monday and the 11th Mekong-Japan summit meeting Tuesday. She is scheduled to leave Japan on Wednesday after meeting with Prime Minister Shinzo Abe on Tuesday.

TEPCO bungled it again

<image: https://img.over-blog-kiwi.com/1/22/53/68/20181024/ob_2456e6_contaminated-water.JPG>
October 9, 2018

EDITORIAL: TEPCO bungles it again in dealing with Fukushima tainted water

<http://www.asahi.com/ajw/articles/AJ201810090025.html>

Disturbing new revelations about increasing amounts of radioactive water at the Fukushima No. 1 nuclear power plant have undoubtedly further darkened the already dim prospects for solving this tricky and complicated challenge.

Tokyo Electric Power Co. (TEPCO), the operator of the nuclear plant destroyed by the 2011 earthquake and tsunami disaster, has said the filtering system to decontaminate the polluted water, known as ALPS (advanced liquid processing system), has failed to remove such radioactive elements as strontium 90 and radioactive iodine.

On Sept. 28, the utility acknowledged that about 80 percent of the water in storage tanks for ALPS-treated water on the plant premises exceeded government standards for radioactive materials.

TEPCO previously claimed that the ALPS system could remove all radioactive elements except for tritium, a mildly radioactive isotope of hydrogen.

But the fact is that of the 890,000 tons of water treated by the ALPS system and stored in the tanks, about 750,000 tons contain higher concentrations of radioactive materials than levels permitted by the safety regulations for release into the ocean.

In 65,000 tons of treated water, the levels of strontium 90 are more than 100 times the safety standards, according to TEPCO. The levels are as high as 20,000 times the standards in some tanks.

In explaining the reasons for this failure, TEPCO pointed to problems with the ALPS system shortly after it was first installed. The utility also reduced the frequency of the replacement of absorbents for removing radioactive materials to keep the system running as long as possible.

The company had long known these facts, but was less than eager to share them with the public.

TEPCO says it has disclosed the data on its website. But it is virtually impossible for an uninformed third-party information seeker to detect such problems in the massive reams of data.

The company deserves to be criticized for having deliberately concealed these inconvenient facts.

The utility reported the facts to an industry ministry subcommittee dealing with the problem of radioactive water and apologized. It appears that the company is not yet fully aware of its responsibility to solve this problem as the operator of the plant where an unprecedented nuclear accident occurred.

The ministry, for its part, should be held accountable for its failure to ensure appropriate disclosure of the information by TEPCO. The subcommittee should be faulted for concentrating its attention almost exclusively on tritium.

Tackling this formidable challenge requires debate from a broad perspective based on diverse information.

This point has been underscored afresh by the latest revelations.

The consequent radical changes in the basic assumptions concerning the problem of radioactive water have brought the process of figuring out a workable way to deal with the challenge back to square one.

TEPCO plans to treat the contaminated water with the ALPS system again to lower the levels of radioactive materials below the safety standards.

This approach, however, is expected to make the water treatment process far costlier and more time-consuming than originally expected, possibly affecting the entire project to decommission the crippled reactors at the plant.

The biggest blow comes from the serious damage the revelations have caused to TEPCO's already strained relationship with local communities.

To build a broad consensus on how to cope with the problem, the government and the utility should work together to ensure timely and adequate information disclosure and set up opportunities for dialogue with local residents.

A system should also be created to promote a national conversation on this issue.

The tanks to store treated water is expected to be filled to capacity by around 2020, according to the government.

But no time limit should be set for debate on the problem. There is no shortcut to a solution.

--The Asahi Shimbun, Oct. 5

Fukushima rice still favourite for rice balls

October 14, 2018

After 16 years, Fukushima's Aizu Koshihikari still the brand of choice for popular Tokyo rice ball shop

<https://www.japantimes.co.jp/news/2018/10/14/national/16-years-fukushimas-aizu-koshihikari-still-brand-choice-popular-tokyo-rice-ball-shop/#.W8Qz6PmYSos>

Fukushima Minpo

A popular rice ball shop stands near Tokyo Station's Yaesu Central Gate, drawing long lines of customers waiting to buy products made with rice from Aizu, Fukushima Prefecture, known for remaining soft with a touch of sweetness even when it gets cold.

As it takes less than a minute to make the rice balls, customers don't have to wait long at Honnoriya, a rice ball chain operated by JR East Food Business Co.

From actors, athletes and comedians to politicians and culinary maestros, many say they are fans of the rice balls. After it was featured on the popular TBS television show "Matsuko no Shiranai Sekai" ("The World Unknown to Matsuko"), a rush of traffic swarmed Honnoriya's website, temporarily shutting it down.

Sadafumi Yamagiwa, president of JR East Food, said the secret of the chain's popularity is the quality of the rice — Koshihikari rice produced in Fukushima's Aizu region.

"It's because the rice tastes good. The Aizu Koshihikari rice is chewy, making it different from other rice," Yamagiwa said.

The firm uses Aizu Koshihikari in all of its 13 outlets located in Tokyo, Kanagawa, Saitama and Chiba. At the main shop in Tokyo, around 7,000 rice balls are sold on busy days. In fiscal 2017, a total of 252 tons of rice were consumed at its 13 stores.

Since Honnoriya opened its first outlet at Tokyo Station in March 2002, it has continued to use Koshihikari brand. Despite having been awarded the top "special A" ranking by the Japan Grain Inspection Association, Aizu Koshihikari is cheap compared with other varieties produced in different regions, Yamagiwa said. Following the 2011 Great East Japan Earthquake and the ensuing nuclear meltdowns at the Fukushima No. 1 nuclear power plant, many consumers avoided produce from the prefecture. The company also received many inquiries about the safety of the rice, and employee opinions differed over which brand should be used.

But as blanket radiation checks conducted on Fukushima-grown rice found no radioactive material, such concern gradually eased, Yamagiwa said.

He stressed that the company has been using Aizu Koshihikari solely for the reason that it tastes good. "It's not like we've been using the rice to support the disaster-hit regions," he said.

Each year, the company chooses a rice brand after comparing the tastes of different varieties produced in different parts of the country.

For the past 16 years, there has been no rice that surpassed Koshihikari produced in Aizu, Yamagiwa said, meaning that Aizu Koshihikari has consistently won the internal competition every single year.

This section features topics and issues from Fukushima covered by the Fukushima Minpo, the largest newspaper in Fukushima Prefecture. The original article was published on Sept. 30.

Politicisation (and removal) of Sun Child



Controversy Blocks Out Sun Child Statue in Fukushima

<image: >

<https://www3.nhk.or.jp/nhkworld/nhknewslines/backstories/sunchild/>

A statue was removed in September from a busy area of Fukushima City, just a month and a half after it had been set up. The "Sun Child" was created by artist Kenji Yanobe to express his hope for the reconstruction of areas affected by the 2011 earthquake and tsunami, and the ensuing nuclear accident.

The statue's fate reflects the mixed feelings Fukushima residents have on the nuclear disaster.

A Sun Child is born

The statue is 6.2 meters tall and depicts a child in a yellow protective suit. It was installed in front of a child-rearing support facility in the middle of the city on July 28th. The Sun Child holds a helmet, smiling as he looks into the distance.

It was created by contemporary artist Kenji Yanobe, a professor at the Kyoto University of Art and Design. He said he wanted the boy taking off his helmet and taking a deep breath to show the air in Fukushima is now clean. He said the radiation counter on the boy's chest shows zero to symbolize a world without nuclear disasters, despite the fact that in reality radiation levels never fall to zero because of natural background radiation. Yanobe also said the sun in the boy's right hand represents his hope for the future and the creation of new forms of energy.

The statue was installed on the eve of my last day at NHK's Fukushima bureau. It was put in front of the building next to the bureau, and I saw it for the first time when I was picking up my stuff at the office. It surprised me, but I never imagined it would cause so much controversy.

Controversy flares

The Sun Child was officially unveiled on August 3rd. It is the first of three identical statues by Yanobe. After debuting at Osaka Expo Park in October 2011, the statue was exhibited across Japan. When it was displayed at the Fukushima airport, the response was so positive that the exhibition period was extended. The statue seemed to have found a permanent home in Fukushima. But immediately after it was installed, there was controversy. Responses were mixed. City officials received calls from people saying they feared the statue would give the impression that residents of the city had to wear protective suits after the nuclear accident. Others said it could lead to more rumors about

the safety of Fukushima. On the other hand, some people said they understood what Yanobe wanted to say, and some said the statue gave them courage.

A survey conducted by the city at the site found 22 respondents were in favor of the statue, while 75 were against. Of the 67 phone calls and messages the city received on the Sun Child, 8 were in favor and 44 were against.

Removal

At first, Fukushima mayor Hiroshi Kohata dismissed the criticism, saying the Sun Child is a symbol of the city's reconstruction. But as the controversy grew, he was forced to change his stance. On August 28th, Kohata announced at a news conference that it was difficult to keep displaying the statue as "a symbol of reconstruction" given the mixed reaction. He said while some residents wanted the statue to stay, many more wanted it gone.

At a city assembly meeting on September 11th, Kohata said he would cut his salary by 10 percent for 3 months to take responsibility for the statue. He pledged to reflect on the failure to build a consensus before the installation, and said it was a lesson in managing municipal government.

Yanobe said at a September 5th press conference that he accepted the city's decision. He added he regretted having rushed to set up the statue without listening to the voices of the people of Fukushima. He said it would be better to discuss the statue after it was removed, given the controversy it had caused. The Sun Child was dismantled and taken away on September 18th and 19th. It was disassembled into 10 parts before being removed. Some came to take pictures as the process began. A man in his 60s said debate surrounding the statue should not end with the removal. He said citizens need to use this opportunity to discuss how to confront the legacy of the nuclear accident.

City officials say they have no plans for the Sun Child's future.

Yanobe says he is concerned the statue's removal could make other artists cautious of expressing themselves, that they may censor themselves. He says he fears the fate of the Sun Child could make artists think twice before they create work that touches on Fukushima. I felt what happened to the statue highlights the difficulty of expressing the nuclear disaster through art.

Politicization of the Sun Child

I talked to people in Fukushima about the removal and I found that controversy on social media may have complicated the issue and was partly responsible for the removal. One person told me both pro and anti-nuclear activists used the statue for their causes. He told me of a case in which someone ordered peaches, a regional specialty, from a local farmer only to later cancel the order, citing worries caused by the Sun Child. My source suspected it was an elaborate attempt to create an atmosphere where the statue had a sway on dialogue. A few hotels in Fukushima have reportedly received similar cancellation notices.

My source says the impact of the controversy on social media played a role in the statue's removal. He says he felt like he had witnessed the dark side of society.

Artistic expression goes on

Does this mean artists should stay away from the theme of Fukushima? Having covered the story, I agree with Yanobe that artists should not be afraid to express themselves. One thing I frequently heard from people in Fukushima was that they feared the number of people paying attention to the nuclear accident would decline. Their biggest worry is being totally forgotten.

How should artists engage with Fukushima from now on? In his statement on the removal of the statue, Yanobe expressed his determination to stay committed to a dialogue with the people of Fukushima. "I take the removal to heart. I want to have dialogues with as many citizens as possible so as to make a fresh start."

Former vice-president of TEPCO apologises

October 16, 2018

Ex-TEPCO VP apologizes as defendant questioning begins in Fukushima nuclear disaster trial

https://mainichi.jp/english/articles/20181016/p2a/00m/0na/011000c#cxrecs_s

TOKYO -- A former vice president of the Tokyo Electric Power Co. (TEPCO) apologized on Oct. 16 during court questioning of three ex-TEPCO top officials indicted on charges of professional negligence resulting in death and injury over the 2011 Fukushima nuclear disaster.

- **【Related】** Whether tsunami predictable, damage avoidable focus of TEPCO nuclear disaster trial
- **【Related】** Ex-TEPCO executives set to plead not guilty over Fukushima nuclear accident
- **【Related】** Anti-tsunami policy shift key to criminal trial of ex-TEPCO execs
- **【Related】** TEPCO staffer testifies execs put off tsunami measures at Fukushima plant

Defendant Sakae Muto, 68, said, "To the many people who lost their lives, their family members or those who were forced to evacuate their homes, I have caused you great pain that cannot be expressed in words, and I extend my deepest apologies. I am very sorry about what happened."

The questioning of Muto at the Tokyo District Court over the accident at the Fukushima No. 1 Nuclear Power Plant in northern Japan is scheduled to continue until the evening, with plans to resume on Oct. 17. The other former executives indicted in the criminal trial are 78-year-old former chairman Tsunehisa Katsumata and former vice president Ichiro Takekuro, 72. This trial marks the first time that the three top officials will be questioned in detail in a court of law about their responsibility for the Fukushima nuclear disaster.

According to the indictment, while the three were aware of the possibility of a large tsunami hitting the Fukushima No. 1 Nuclear Plant, they neglected to take countermeasures, leading to the March 2011 accident. As a result, they are thought to have caused the deaths of 44 patients who had to evacuate from Futaba Hospital in the town of Okuma, Fukushima Prefecture, near the power plant for a long period of time due to the accident, among other charges.

At the first hearing of the trial in June 2017, Muto said, "Looking back now, there was no way of predicting that such an accident could occur. I do not believe we are responsible." The other two defendants are also maintaining their innocence in the matter.

Former vice president Takekuro will be questioned on Oct. 19, followed by former chairman Katsumata on Oct. 20.

(Japanese original by Masanori Makita, City News Department, and Mirai Nagira, Science & Environment News Department)

Ex-TEPCO executive apologizes in court

https://www3.nhk.or.jp/nhkworld/en/news/20181016_22/

A court in Tokyo is questioning a former executive of Tokyo Electric Power Company in a trial over the nuclear accident at Fukushima Daiichi power plant in 2011. He apologized at the beginning of his

testimony.

Tokyo District Court started questioning in the criminal trial of TEPCO's 3 former executives on Tuesday. One of them, former Vice President Sakae Muto, first took the stand to answer questions.

Muto said many people lost their lives, their families and homes and that he is deeply sorry for causing indescribable trouble.

In the morning, the defense lawyers asked questions about safety awareness at the power plant. Questioning by prosecutors is scheduled to take place in the afternoon.

This is the 30th hearing the court has convened for the trial that started in June last year. Muto will be questioned on Wednesday as well.

Together with Muto, former TEPCO Chairman Tsunehisa Katsumata and former Vice President Ichiro Takekuro are accused of professional negligence resulting in death. They all are denying the charges, saying that they could not anticipate the massive tsunami and the accident.

Testimonies in the past hearings of the case revealed that the utility held off on taking measures to secure the plant even after learning about the possibility of a 15.7-meter tsunami striking the facility.

Attention is focused on how the accused will explain holding off on countermeasures despite being briefed of the possibility 3 years before the fatal tsunami, and their argument that a tsunami could not be predicted.

Court to question ex-TEPCO executives

https://www3.nhk.or.jp/nhkworld/en/news/20181016_02/

A court in Tokyo will start questioning three former executives of Tokyo Electric Power Company on Tuesday about the 2011 Fukushima Daiichi nuclear power plant accident.

The 3 defendants are former TEPCO Chairman Tsunehisa Katsumata and former Vice Presidents Ichiro Takekuro and Sakae Muto. They are accused of professional negligence resulting in death.

The trial began in June of last year. The focal point is whether a massive tsunami that hit the Fukushima Daiichi nuclear plant was predictable, as well as whether the accident could have been prevented if necessary measures had been taken.

The 3 defendants maintain their innocence, saying they could not anticipate the accident.

The court has sat 29 times so far hearing the case, and 21 people have testified. It has heard testimony saying the utility held off on taking measures to secure the plant even after learning about the possibility of 15.7-meter tsunami striking the facility.

The court will start questioning former Vice President Muto on Tuesday.

TEPCO's ex vice-president denies procrastinating about anti-tsunami measures

October 16, 2018

TEPCO exec denies delaying anti-tsunami steps before nuclear crisis

<https://mainichi.jp/english/articles/20181016/p2g/00m/0bu/084000c>

TOKYO (Kyodo) -- A former vice president of Tokyo Electric Power Company Holdings Inc. denied Tuesday his responsibility in the 2011 Fukushima nuclear crisis, saying he did not procrastinate on taking measures against tsunami waves that flooded the nuclear power plant and caused fuel meltdowns. In a hearing at the Tokyo District Court, Sakae Muto, 68, said he believes it was "an appropriate procedure" to reexamine a 2008 estimate of high waves made by the operator of the Fukushima Daiichi plant, citing the low credibility of the original data used for the projection.

"I had no intention to buy time and I'm offended by the claim that I put off taking measures," said Muto, who is charged with professional negligence resulting in deaths and injuries in connection with one of the world's worst nuclear crises.

Along with Muto, another former vice president Ichiro Takekuro, 72, and former chairman Tsunehisa Katsumata, 78, were also indicted in 2016 for allegedly failing to take measures to prevent the disaster. The indictment of the three was mandated in 2015 by an independent panel of citizens after prosecutors decided against laying charges.

Earlier testimonies have revealed Muto was informed in 2008 of an estimate that a tsunami as high as 15.7 meters could hit the plant, but asked an engineering association to check how credible the projection was rather than immediately implementing preventive steps.

Muto told the court he thought the projected tsunami "very high" and that it came "out of the blue." The estimate based on the national long-term quake risk evaluation in 2002 was first presented to TEPCO in March 2008 by a subsidiary firm and Muto said he was briefed on that data in June that year.

He defended his move, saying, "I had no decision-making power. We were discussing how to collect information necessary for the company to formulate a policy."

"I thought the long-term evaluation was unreliable," he said, "I was not in a situation where I could decide on measures based on it."

The former executive also said he told Takekuro about the projection of the high tsunami in August 2008, although a lawyer for Takekuro said at the first hearing of the trial in June last year he has no memory of being briefed on it.

Muto offered his apology to those affected by the crisis at the outset of the court hearing, saying, "As a person involved, I deeply apologize to those who died and their families as well as those who had to evacuate."

The prosecution alleges Muto continued to operate the Fukushima plant without taking proper safety measures, while the defense argued the tsunami was unforeseeable as the state evaluation was not credible and the crisis could not have been avoided even if he had taken measures.

Public attention has been on whether the utility was able to foresee a massive tsunami and prevent the nuclear crisis. More than 300 people lined up for the 58 gallery seats at the facility's largest courtroom to listen to Muto's testimonies.

The three former executives are blamed for injuries to 13 people, including Self-Defense Forces members, resulting from hydrogen explosions at the plant, as well as the deaths of 44 people, including patients forced to evacuate from a hospital.

Takekuro and Katsunuma are scheduled to be questioned in court later in the month.

On March 11, 2011, the six-reactor plant located on the Pacific coast was flooded by tsunami waves triggered by a major earthquake, causing the reactor cooling systems to lose their power supply. The Nos. 1 to 3 reactors subsequently suffered fuel meltdowns, while hydrogen explosions damaged the buildings housing the No. 1, 3 and 4 units.

Following the crisis, that equaled the severity of the 1986 Chernobyl accident, some 160,000 people were at one stage evacuated and more than 40,000 of them remained displaced as of late September.

Experts and TEPCO officials are divided over the credibility of the evaluation, which covered a massive tsunami that could hit the Pacific shore, including that of Fukushima Prefecture.

Makoto Takao, a TEPCO employee who was in charge of compiling the estimate, has said many seismologists supported the evaluation given by state authorities.

But Tohoku University professor Fumihiko Imamura, who was consulted by TEPCO over the long-term evaluation, said it was something that could not be ignored but it did not prompt immediate action.

See also : <https://www.japantimes.co.jp/news/2018/10/16/national/ex-tepcovp-denies-delaying-measures-tsunami-fukushima-nuclear-crisis-tokyo-court-hearing/#.W8XV2PmYSos>

Ex-TEPCO exec denies being told of need for tsunami steps

<http://www.asahi.com/ajw/articles/AJ201810160055.html>

THE ASAHI SHIMBUN

A former vice president of Tokyo Electric Power Co. refused to take any responsibility for the Fukushima nuclear disaster, testifying in court Oct. 16 that he was never made aware of the possibility of destructive tsunami striking the facility and, therefore, did not authorize countermeasures.

Sakae Muto, 68, is on trial on a charge of professional negligence resulting in death and injury over the March 2011 catastrophe at the Fukushima No. 1 nuclear power plant, along with Tsunehisa Katsumata, a former TEPCO chairman, and Ichiro Takekuro, another former TEPCO vice president.

Towering tsunami generated by the Great East Japan Earthquake inundated the coastal complex, knocking out cooling systems and triggering a triple meltdown.

Muto denied in the Tokyo District Court that he and the two other top executives once gave the green light for countermeasures against a powerful tsunami three years before the disaster occurred.

"We were never notified that such a thing could happen," Muto stated.

To prove negligence, prosecutors must show that top executives could have reasonably predicted the scale of the tsunami that swamped the plant, setting off the most serious nuclear accident since the 1986 Chernobyl disaster.

Muto's testimony followed oral statements given in a previous court hearing by Kazuhiko Yamashita, head of TEPCO's center tasked with compiling anti-earthquake measures.

In the statements, Yamashita said he notified Muto, Katsumata and Takekuro in a February 2008 meeting that the height of a powerful tsunami predicted to hit the site would be at least 7.7 meters.

Yamashita's team arrived at the figure using a simplified calculation based on the long-term assessment of the probability of major earthquakes released by the government's Headquarters for Earthquake Research Promotion in 2002.

Yamashita said in his statements that he took it that the three executives understood his team's projection was based on a government assessment and that they approved taking anti-tsunami measures.

Yamashita's statements were made to prosecutors between 2012 and 2014, when he was under investigation in connection with the nuclear disaster. The court accepted them as evidence.

A TEPCO subsidiary's civil engineering team came up with a figure of 15.7 meters after conducting a more detailed study.

The update was conveyed to TEPCO executives in June that year. But Muto, who was deputy chief of the company's nuclear power and plant siting division, instructed subordinates the following month to shelve the anti-tsunami measures, according to witnesses who testified in previous hearings.

Asked about the February meeting, Muto denied that he was notified destructive tsunami could strike, or safety steps were required.

"No such topics were raised during the meeting," he stated.

Muto also characterized the meeting that included Katsumata and Takekuro as "not one to make a decision as an organization, but one to share information."

With regard to the projection of 15.7 meters, Muto said, "I was briefed that the (government's) long-term assessment is not credible and thought that no new scientific expertise was available."

He also rejected suggestions that he postponed taking anti-tsunami measures.

"I simply thought it would be difficult to come up with a design for a strong sea wall straight away," he said.

Asked whether it was possible that his division alone was empowered to halt plant operations in anticipation of encroaching danger, he emphatically denied this was so.

He said a decision of such gravity is "too weighty in terms of business management that the nuclear power and plant siting division's decision alone cannot make it happen."

Muto went on to state: "It would have been necessary for the division to consult with not only many divisions and sections of our company, but also other utilities and central and local governments and explain to them the grounds and the need to halt operations."

He started his testimony by offering a "deep apology" for causing "trouble beyond description" to people affected by the nuclear disaster.

The Fukushima No. 1 nuclear plant's reactor buildings sit on elevated land 10 meters above sea level. The tsunami spawned by the magnitude-9.0 earthquake reached 15.5 meters around the reactor buildings, according to traces left there.

Prosecutors had initially declined to press charges against the three former executives, citing insufficient evidence. However, a committee for the inquest of prosecution twice concluded that the trio should be indicted.

(This article was written by Mikiharu Sugiura and Chikako Kawahara.)

TEPCO former exec denies tsunami accusations

https://www3.nhk.or.jp/nhkworld/en/news/20181016_36/

A Tokyo court has begun questioning 3 former executives of Tokyo Electric Power Company about their involvement in the 2011 nuclear accident at the Fukushima Daiichi plant.

Former chairman Tsunehisa Katsumata and former vice presidents Ichiro Takekuro and Sakae Muto were indicted by court-appointed lawyers on charges of professional negligence resulting in death. All 3 have denied the charges.

Public prosecutors decided in 2013 not to press charges against the 3. But a prosecution inquest panel of randomly selected citizens later voted to indict them. This led to mandatory indictment by the lawyers appointed by the court to act as prosecutors.

Muto took the stand first on Tuesday at the Tokyo District Court. The former vice president in charge of nuclear plant safety measures apologized at the start of his hearing.

In 2008, 3 years before the accident, Muto received an in-house report that said tsunami waves up to 15.7 meters high could hit Fukushima Daiichi, according to calculations based on the government's long-term assessment of tsunami.

More than a month later, Muto allegedly ordered the matter referred to the Japan Society of Civil Engineers for further consideration. Lawyers acting as prosecutors claim Muto put off anti-tsunami safety measures.

Muto said he was told the long-term assessment lacked credibility because experts have different opinions about it.

He said the only option was to refer the matter to civil engineering experts.

Muto added that seeking opinions of outside experts is standard procedure in making management decisions.

He strongly denied putting off countermeasures, and described the allegations as totally unthinkable.

Was the tsunami foreseeable?

October 15, 2018

Whether tsunami predictable, damage avoidable focus of TEPCO nuclear disaster trial

<https://mainichi.jp/english/articles/20181015/p2a/00m/0na/028000c>

TOKYO -- The criminal trial of three top former Tokyo Electric Power Co. (TEPCO) officials indicted on charges of professional negligence resulting in death and injury over the 2011 Fukushima nuclear disaster will reach a climax as the defendants will begin to answer questions from prosecutors and their defense lawyers on Oct. 16.

- **【Related】** Fukushima prof., residents seek to establish an archive of nuke disaster lessons
- **【Related】** Nearly 60,000 evacuees, 5,623 in temporary housing 7.5 yrs after Tohoku disaster

- **【Related】** 80% of local heads in nuke disaster areas say they can't meet population goals: poll

They will face these two focal questions: Was it possible for them to predict the massive tsunami that triggered the triple core meltdowns at the TEPCO plant in the northeastern Japan prefecture of Fukushima, and was the damage from the natural disaster avoidable?

The three former TEPCO executives to undergo questioning are **former Chairman Tsunehisa Katsumata and former vice presidents Ichiro Takekuro and Sakae Muto**. All of them essentially answered no to those two questions in the opening session of the trial in June last year; that they could not foresee the tsunami, and therefore have no criminal responsibility for the damage caused by the natural disaster leading to the nuclear accident.

This unusual trial took several years to come to the Tokyo District Court as prosecutors' two refusals to indict the three ex-executives were overridden each time by the committee for the inquest of prosecution. As a result, **the defendants were forcibly indicted by lawyers serving as prosecutors.**

The trial's eight months of cross examinations of various witnesses that ended on Oct. 3 gave rise to the view that the former management essentially postponed taking sufficient countermeasures against the level of tsunami that hit the Fukushima No. 1 Nuclear Power Station on March 11, 2011 out of cost considerations.

The gushing seawater sent to the Fukushima shore by the Great East Japan Earthquake halted diesel power generators at the plant, making it impossible to cool down the nuclear fuel cores that melted down to the ground and resulted in the release of a massive amount of radioactive materials into the surrounding environment. This nuclear disaster forced the evacuation of tens of thousands of residents around the plant, and many of them are still unable to return to their homes seven years after the incident. --- 'Management first, countermeasures second'?

In the 24th session of the trial on Sept. 5, an affidavit given to the prosecution by a former top TEPCO official in charge of tsunami countermeasures was read out: "Our business environment was deteriorating because of the Niigata Chuetsu offshore earthquake of 2007 that halted the Kashiwazaki-Kariha nuclear power station, and **we wanted to prevent the Fukushima No. 1 plant from stopping by all means.**" The statement said that **the former management once decided to introduce measures to protect against possible tsunami damage but decided to postpone them after finding out that they were more costly than expected**, implying that managerial decisions were behind the delay.

Earlier, all TEPCO tsunami countermeasure officials who testified before the court had agreed that such steps must be taken in response to **a 2002 government estimate that "a massive tsunami could occur off the Fukushima coast."** Their testimonies, however, did not explain why the process was delayed.

According to the affidavit, the three defendants including Katsumata approved countermeasures at a top-level TEPCO meeting in February 2008 after a report was presented to the meeting that an estimated wave 7.7 meters high or more could hit the Fukushima facility. But more detailed calculations showed that the potential maximum height would be 15.7 meters, and it was reported to Muto, the former vice president, that **it was now estimated to cost tens of billions of yen and take more than four years to complete the countermeasures. Following this estimate, Muto decided to ask experts to re-evaluate the reliability of the 2002 government estimate, effectively shelving steps to mitigate damage from tsunami.** Implementing tsunami countermeasures could mean a halt to the Fukushima nuclear plant as construction work could not be completed in time. If that was the case, it was better to work behind closed doors and influence regulators so that they would clear the facility as safe, according to the testimony by a former tsunami countermeasure official presented in September this year.

If the management really postponed measures to curb tsunami damage as explained in the affidavit that would fit with the argument by the prosecution -- as highlighted by designated lawyers in the special trial. Another focal point of the trial would be how the three defendants would explain this point.

Moreover, it is still not clear what Katsumata, the then chairman, and Takekuro, another vice president back then, were thinking about the results of tsunami damage estimates reported to the February 2008 meeting. The level of involvement by these two defendants is also a highlight of the questioning session starting Oct. 16.

According to the 2002 government estimate, there was a 20 percent chance that a magnitude-8 earthquake could occur along the Japan Trench off the northeastern Japan coast of Sanriku and the eastern coast of Boso during the next 30 years. Fukushima lies alongside this area, which triggered three major tremblers that caused massive tsunami during the past 400 years as shown in historical records. Professor Fumihiko Imamura of Tohoku University, a tsunami dynamics specialist, questioned the validity of the government evaluation during the trial saying, "It cannot be ignored but has many issues," siding with the three defendants. But professor emeritus Kunihiro Shimazaki of the University of Tokyo, a seismologist who headed an expert panel that compiled the 2002 estimate, testified that the panel's conclusion didn't face any objections from panel members. **"It was a consensus conclusion. The (2011 nuclear) accident could have been avoided if countermeasures were taken according to the long-term evaluation,"** Shimazaki said. His testimony indicated the defendants failed to act properly.

In class action damages suits filed by evacuees from the 2011 nuclear accident and others, five district courts have ruled that the massive tsunami that triggered the core meltdowns could have been foreseen based on the 2002 estimate. But **criminal trials require stronger proof and sometimes end with different conclusions than civil suits.**

Meanwhile, about the question of whether the damage caused by the tsunami was avoidable, a former TEPCO employee at the time of the nuclear disaster said in the trial that "damage from tsunami could not be prevented even if countermeasures were taken." The superior of the employee testified that "countermeasures, if implemented, could be too late, but I think something could have been done."

A former employee of the Japan Atomic Power Co. testified that his company constructed soil embankments around its **Tokai No. 2** nuclear power station in the village of Tokai in Ibaraki Prefecture to the south of Fukushima, to fend off a tsunami to a height of 12.2 meters. This measure was based on the 2002 government estimate, and the facility was spared of damage from the 2011 earthquake and tsunami. The prosecution argues that such a measure would have prevented the Fukushima nuclear facility from causing the devastating damage.

(Japanese original by Ei Okada, Science & Environment News Department, and Masanori Makita, City News Department)

Safety postponed

October 20, 2018

Putting tsunami countermeasures on hold at Fukushima nuke plant 'natural': ex-TEPCO VP

TOKYO -- A former vice president at Fukushima Daiichi nuclear station operator Tokyo Electric Power Co. (TEPCO) told a court here on Oct. 19 that it was "natural" for the utility to put tsunami countermeasures at the plant on hold while it consulted experts.

- **【Related】** Denials dominate 1st trial questioning of ex-TEPCO VP over tsunami-triggered nuke disaster
- **【Related】** Ex-TEPCO VP apologizes as defendant questioning begins in Fukushima nuclear disaster trial
- **【Related】** TEPCO staffer testifies execs put off tsunami measures at Fukushima plant

Ichiro Takekuro, 72, is under indictment on charges of professional negligence resulting in death and injury over the nuclear disaster that broke out after tsunami hit the Fukushima Daiichi plant in March 2011. His testimony at the Tokyo District Court backed fellow defendant Sakae Muto, 68, who made the decision on the tsunami countermeasures.

TEPCO estimated in March 2008 that tsunami waves up to 15.7 meters high could hit the Fukushima Daiichi nuclear plant, based on a long-term evaluation made by the government's Headquarters for Earthquake Research Promotion in 2002. While being aware of the company's estimate, Muto put tsunami countermeasures on hold in July 2008 and instructed subordinates to ask experts to evaluate the reliability of the long-term evaluation.

A key point of contention in the trial is whether the Muto's decision constituted "postponement" of countermeasures.

Muto told earlier court hearings that he had informed Takekuro in August 2008 of the company's maximum tsunami height estimate. However, Takekuro told the Oct. 19 hearing that he had no recollection of that, adding that he heard the estimate from another subordinate sometime in April or May 2009.

With regard to the government's long-term evaluation, Takekuro said, "I heard that it wasn't supported by specific proof. I thought thorough discussion was necessary if there were unclear factors," again justifying Muto's decision.

As to TEPCO's estimation that 15.7-meter tsunami waves could hit the power station, Takekuro said he "didn't feel any sense of urgency."

Takekuro is standing trial along with Muto and former TEPCO President Tsunehisa Katsumata, 78, over the nuclear crisis.

Prosecutors had abandoned indicting the three. However, court-appointed lawyers indicted them after a prosecution inquest panel deemed twice that they deserved to stand trial.

TEPCO: Denials and more denials

October 17, 2018

Denials dominate 1st trial questioning of ex-TEPCO VP over tsunami-triggered nuke disaster

https://mainichi.jp/english/articles/20181017/p2a/00m/0na/019000c#cxrecs_s

TOKYO -- Denials of allegations dominated the questioning on Oct. 16 of former Tokyo Electric Power Co. (TEPCO) vice president Sakae Muto in the criminal trial he and other ex-TEPCO leaders face over their responsibility to predict and prevent damage caused by the 2011 tsunami that triggered an unprecedented nuclear disaster in northeastern Japan.

- **【Related】** Ex-TEPCO VP apologizes as defendant questioning begins in Fukushima nuclear disaster trial
- **【Related】** Whether tsunami predictable, damage avoidable focus of TEPCO nuclear disaster trial
- **【Related】** Ex-TEPCO executives set to plead not guilty over Fukushima nuclear accident

"The charge that I delayed (tsunami countermeasures) is outrageous," said Muto, 68, during the questioning at the Tokyo District Court. He repeated emphatic rebuttals against the prosecution's argument that the damage could have been avoided if he had taken appropriate actions earlier.

Muto and two other defendants -- former TEPCO chairman Tsunehisa Katsumata, 78, and former vice president Ichiro Takekuro, 72 -- stand accused of professional negligence resulting in deaths and injuries of evacuees from the nuclear disaster. They were indicted in 2016 by lawyers serving as prosecutors after public prosecutors refused to do so twice and the prosecution inquest committee shot down those refusals.

A massive tsunami caused by the Great East Japan Earthquake on March 11, 2011 hit TEPCO's Fukushima Daiichi Nuclear Power Station, cutting the facility off the power grid and ruining emergency power generators. The prolonged blackout made it impossible to cool down the nuclear fuel cores at three reactors, triggering their meltdowns and the release of massive amounts of radioactive materials into the atmosphere. As a result, hundreds of thousands of nearby residents, including elderly patients, were forced to flee, with dozens dying and others getting injured in the process.

During the questioning on Oct. 16, Muto replied "Not at all" on many occasions when defense lawyers asked him if he procrastinated on introducing measures to protect the nuclear station from potential high tsunami waves three years before the 2011 incident.

When asked by lawyers serving as prosecutors about the exchange he had with his subordinate at the time tsunami countermeasures were discussed, Muto insisted, "I do not recall." When his answer was cut short by the prosecution, Muto indicated his dissatisfaction, crossing his arms with a big sigh.

According to past testimonies in the trial that began in June last year, Muto and other top TEPCO officials heard reports from subordinates about the need for tsunami countermeasures at the Fukushima plant, and they approved those steps. **Muto, however, told the court that the top-level meeting was "for**

information sharing" and not for decision-making. The defendant also denied that he was briefed on such measures.

The former TEPCO vice president did apologize at the beginning of the questioning, saying, "To the many people who lost their lives, their family members or those who were forced to evacuate their homes, I have caused you great trouble that cannot be expressed in words." Muto, clad in a dark suit, then stood up, bowed deeply and stated, "I extend my deepest apologies. I am very sorry about what happened."

(Japanese original by Mirai Nagira, Science & Environment News Department, and Masanori Makita, City News Department)

Distrust an obstacle to decommissioning

October 19, 2018

Distrust of TEPCO Hampers Decommissioning

<https://www3.nhk.or.jp/nhkworld/nhknewslive/backstories/distrustoftepc/>

A major challenge at the Fukushima Daiichi nuclear power plant is disposing of water containing a large amount of radioactive tritium. The Japanese government proposed diluting and releasing the water into the sea, but many fisheries in Fukushima are voicing strong opposition to the proposal. Disposal of the tainted water is a must for scrapping reactors at the plant. So, what should the government and TEPCO officials do?

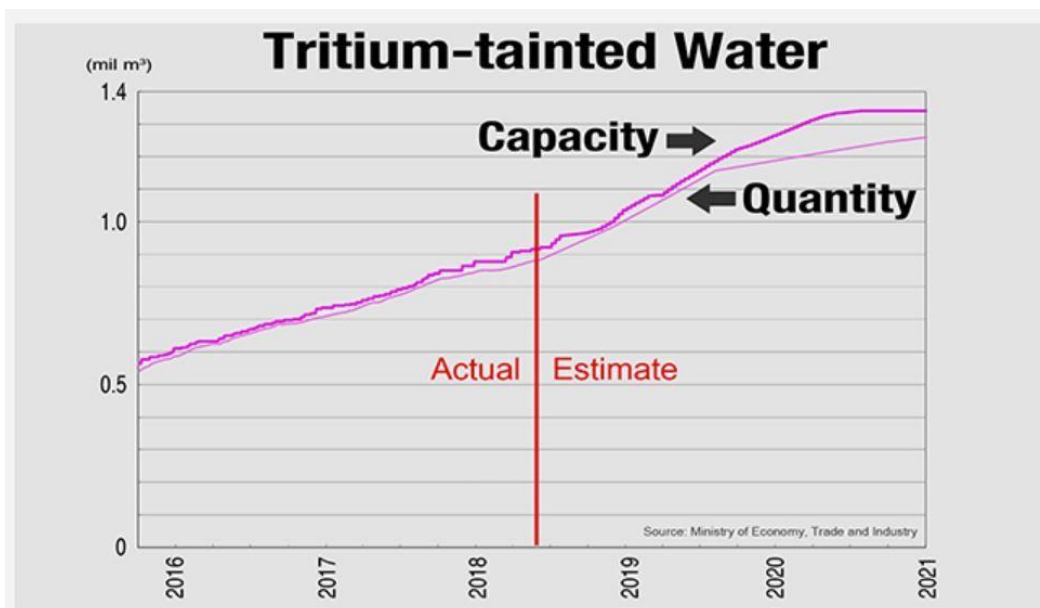
Doing away with tritium-tainted water is essential

Every day, more than 100 tons of radioactive water builds up. Despite various measures taken since the 2011 accident at Fukushima Daiichi, groundwater continues to enter the reactor buildings, mixing with water which is being used to cool the reactors.

The Tokyo Electric Power Company uses a system called ALPS to treat the water. Officials have been saying that the system's high-performance filters can get rid of most radioactive substances, except tritium.

TEPCO is not allowed to dispose of that water because its tritium levels surpass the limit set by the government.

That's why the utility is storing 920,000 tons of the water in more than 800 tanks. The water is expected to increase by up to about 100,000 tons a year. The government and the firm say that in a matter of years, Fukushima Daiichi will run out of space for tanks.



A government panel of experts has been discussing what to do with the water. The experts concluded that the technology for separating tritium cannot be put into practical use yet. They instead put several options on the table such as:

- 1) Diluting and releasing the water into the sea
- 2) Heating and evaporating the water
- 3) Burying the water deep underground

A report later compiled by the panel said releasing the water into the sea will make the most sense. Experts say this is the cheapest and quickest way among all the options. The question is, is it safe?

Tritium exists in the atmosphere. The government, TEPCO and the Nuclear Regulation Authority say tritium emits a weaker form of radiation than other radioactive substances. They say that even if tritium enters the human body, it will be incorporated into water and quickly released outside. Officials say therefore, tritium is likely to pose few health risks if its concentration is low.

In the past, nuclear power plants across Japan actually released water containing tritium after confirming its readings were below the limit.

NRA Chairman Toyoshi Fuketa has been calling on the government and TEPCO to make a quick decision, saying releasing the water into the sea after its tritium level falls below the limit is the only viable option. He thinks the approval process for the proposal is unlikely to take long, so it will have limited impact on the work to scrap the reactors.

Mounting distrust among fisheries

After the expert panel compiled its report, the government held public hearings to make a final decision. At a hearing held in the town of Tomioka in Fukushima Prefecture on August 30th, the proposal came under fire mainly from people in the fishing industry.

The head of the Fukushima Prefectural Federation of Fisheries Cooperative Associations said the proposed move will be a devastating blow to the local fishing industry. He said its past efforts will go to waste, and it will deprive the industry of its motivation for rebuilding businesses.

Fishermen in Fukushima suspended their operations after radioactive materials exceeding the government-set limits were detected in seafood caught off the prefecture following the 2011 accident. But in recent years, no fish from the area have been found to be highly radioactive. Now, fishermen can catch and ship most kinds of fish.

However, some consumers still hesitate to eat marine products from Fukushima. Fish landings are still about one-tenth of levels before the accident. Local fisheries fear that if TEPCO releases the water into the ocean, they will have to delay their plans to resume operations at full capacity and struggle again to make ends meet -- even if the water is deemed safe.

The underlying problem is distrust towards the government and TEPCO. There have been numerous instances in which TEPCO withheld the fact that tainted water had leaked into the sea. Locals saw them as acts of betrayal. They fear that once TEPCO begins dumping the water into the sea, consumers may refrain from purchasing fishery products from Fukushima Prefecture even further.

Public distrust further deepened during the hearings. It came to light that the water stored in some of the tanks contains levels of radioactive substances, such as iodine that exceed the limit. This contradicts the explanation given by the government and TEPCO -- that the water treatment system can reduce all radioactive substances to a level below the limit, except for tritium.

My understanding was that tritium was the only radioactive substance in the tanks that exceeds the government-set limits. I was not the only one who was confused. Other participants also expressed concerns that TEPCO may have been concealing the facts.

TEPCO officials explained that levels of some radioactive substances could exceed the limits if the water treatment filters are used continuously. They said that's not a problem, adding that the goal is to reduce the risk of radiation exposure, and that they have been making the data public on their website.

After hearing this, I checked TEPCO's website once again. There, I found the iodine levels, but they were buried in a massive amount of data, making it very difficult to find. TEPCO officials didn't seem eager to provide a full explanation of what has happened so far.

But TEPCO's claim that this isn't a problem differs with the public's view. Its attitude is worsening the problem.

TEPCO officials tend to make decisions based on technical considerations, which often fail to sufficiently acknowledge the concerns of the locals. The officials also appear reluctant to release information that is inconvenient for them. Unless they change their mindset, they will not be able to regain the public's trust.

Steps TEPCO must take to regain trust

First and foremost, the government and TEPCO must provide thorough explanations and responses to the questions and opinions expressed in the hearings. They need to clarify why they didn't proactively explain the level of radioactive substances and provide their exact levels and how they will deal with them.

In addition, the government should hold public hearings at various other locations and communicate more with the public. The latest round of public hearings was held only in Fukushima and Tokyo and this didn't seem sufficient to regain public support.

Decommissioning of the crippled Fukushima Daiichi nuclear plant is a prerequisite for the reconstruction of areas devastated by the nuclear disaster. To this end, treatment of contaminated water is a must, and it needs be done swiftly. However, there will not be progress, no matter which method is taken, without the consent of the people affected by the nuclear disaster.

TEPCO and government officials must offer truthful updates as soon as they happen. While this sounds obvious, it's the only way to regain people's trust and resolve the problem of the accumulation of tainted water.

Too much power?

October 16, 2018

VOX POPULI: Balance of power would tilt from nuclear to solar if logic prevailed

Vox Populi, Vox Dei is a daily column that runs on Page 1 of The Asahi Shimbun.
<http://www.asahi.com/ajw/articles/AJ201810160023.html>

Going on a trip after being jilted by one's lover is a frequent theme of popular Japanese songs, and the destination is often somewhere cold and bleak in the north.

In mega-hit "enka" ballads, such as "Tsugaru Kaikyo Fuyugeshiki" (Tsugaru Strait winter scene) and "Kita no Yado kara" (From an inn in the north), icy winds heighten the heartache.

In contrast, blissful newlyweds used to invariably head south, according to "Ryoko no Susume" (Encouragement of travel) by Yozaburo Shirahata.

Miyazaki Prefecture on the southern island of Kyushu was the top honeymoon destination, bar none, before overseas travel became common for the public.

In the mid-1970s, Miyazaki attracted more than 30 percent of honeymooners nationwide. Neighboring Kagoshima Prefecture was also popular.

Both prefectures offered plenty of sunshine, which was deemed ideal for newlyweds. This sunny climate must also be the reason for the growing number of solar panels installed in Kyushu.

That should make us happy, but Kyushu Electric Power Co. apparently feels otherwise. The regional utility has ordered a partial suspension of solar power generation, saying the arrival of cooler weather has reduced consumers' reliance on air conditioners.

It explained that surplus power generation can disrupt the supply-demand balance and cause outages.

This is something I'd never heard before, but I suppose power generation follows a complex system.

Still, the utility's four nuclear reactors have remained in operation in accordance with the national government policy of prioritizing nuclear power generation.

Seven years have passed since the Fukushima nuclear disaster prompted the nation to promote solar power generation after seeing the risks of relying on nuclear power.

But **have the nation's utilities been just sitting around all these years, not bothering to prepare themselves for renewable energy?**

The companies have no time to waste. They must reinforce their grids to enable mutual sharing of electricity and stop nuclear reactors that are redundant.

Solar power generation is taking off not only in the south, but also around the nation. Northern Japan also has many localities suited for wind turbine installation.

When young trees are starting to grow, so to speak, they must not be allowed to wither.

--The Asahi Shimbun, Oct. 15

Fukushima wind turbine removed

October 27, 2018

Fukushima wind turbine, symbol of disaster recovery, to be removed

<https://mainichi.jp/english/articles/20181027/p2g/00m/0dm/009000c>

FUKUSHIMA, Japan (Kyodo) -- A floating wind turbine built off Fukushima Prefecture to symbolize recovery after the 2011 nuclear disaster will be removed, a government source said Friday.

- **【Related】** Samurai horsemen show off skills in traditional Fukushima festival
- **【Related】** Wildfire rages in highly radioactive Fukushima mountain forest
- **【Related】** 5 more minors in Fukushima Pref. at time of nuclear accident diagnosed with thyroid cancer

The offshore power facility was put in place as the Fukushima prefectural government introduced renewable energy after the triple reactor meltdown at the Fukushima Daiichi nuclear power plant in the days following the huge earthquake and tsunami of March 2011.

Experimental studies were conducted with a view toward commercialization but the turbine, one of the world's largest with a rotor diameter of 167 meters, was deemed unprofitable due to multiple malfunctions decreasing the utilization rate.

"At present, we are considering a method of removal because the maintenance cost is too high," said the government source.

The turbine is one of three on a floating wind farm 20 kilometers off the coast of Naraha city in Fukushima Prefecture.

The cost of removal of the 15.2 billion yen (\$135 million) turbine with an output capacity of 7,000 kilowatts is expected to be around 10 percent of the building cost.

Studies on the two other turbines are planned to conclude in fiscal 2018, but the study period is expected to be extended to seek any possibility of commercialization.

The turbine started operating in December 2015 but was riddled with operating problems.

Its utilization rate over the year through June 2018 was 3.7 percent, well below the 30 percent necessary for commercialization.

The two other turbines, of different size, have utilization rates of 32.9 percent and 18.5 percent.

Gubernatorial elections in Fukushima

October 28, 2018

Incumbent Uchibori set to be re-elected as Fukushima governor

https://mainichi.jp/english/articles/20181028/p2g/00m/0dm/082000c#cxrecs_s

FUKUSHIMA (Kyodo) -- Incumbent Fukushima Gov. Masao Uchibori is set to secure another four-year term Sunday, beating three challengers, a Kyodo News projection showed.

- **【Related】** Voting under way in Fukushima gubernatorial election
- **【Related】** Anti-nuke power mayor recognized by Time magazine loses re-election

Throughout the election campaign, the 54-year-old governor, who is in his first term, enjoyed a comfortable lead over the other candidates -- Jun Kanayama, 78, a self-employed worker, Sho Takahashi,

30, an IT company owner, and Kazushi Machida, 42, prefectural chairman of the Japanese Communist Party.

While all four candidates ran as independents, Uchibori received support from the ruling and opposition parties, except for the communist party.

The northeastern prefecture, where there are about 1.6 million eligible voters, is still on the road to recovery from the nuclear meltdowns at the Fukushima Daiichi power plant, which were triggered by the devastating earthquake-tsunami on March 11, 2011.

During the campaign, Uchibori pledged further efforts to rebuild local communities and promote the return of residents who have moved out of the prefecture due to the disaster, but many voters voiced concerns about the candidates proposing few specific measures to help residents recover from the devastation.

Voting under way in Fukushima gubernatorial election

https://mainichi.jp/english/articles/20181028/p2g/00m/0dm/024000c#cxrecs_s

FUKUSHIMA (Kyodo) -- Voting is under way Sunday in the gubernatorial election in Fukushima Prefecture, with the incumbent's approach to reconstruction work in the wake of the 2011 earthquake and nuclear disaster having been the major point of debate during the campaign.

- **【Related】** Anti-nuke power mayor recognized by Time magazine loses re-election
- **【Related】** Election Battlegrounds: PM Abe stresses recovery in Fukushima

In the election, incumbent Masao Uchibori, 54, faces three challengers -- Jun Kanayama, 78, a self-employed worker, Sho Takahashi, 30, an IT company owner, and Kazushi Machida, 42, prefectural chairman of the Japanese Communist Party. About 1.6 million people are eligible to vote.

All four candidates are running as independents. But Uchibori, currently in his first term, has received support from the ruling and opposition parties except for the communist party.

The northeastern prefecture is still on the road to recovery from the nuclear meltdowns at the Fukushima Daiichi power plant, which were triggered by the devastating earthquake-tsunami on March 11, 2011.

What about government's responsibility?

October 24, 2018

Draft bill omits state burden for nuclear accident compensation

<http://www.asahi.com/ajw/articles/AJ201810240030.html>

THE ASAHI SHIMBUN

After more than three years of discussions, the nuclear damage compensation law will be left largely intact, including unlimited redress from utilities for accidents at their nuclear plants and vagueness about the government's responsibility.

Only minor changes will be made to the law, such as measures to accelerate provisional payments to victims of nuclear accidents.

Science ministry officials on Oct. 23 presented a draft of proposed legislation to revise the law at a committee meeting of the ruling Liberal Democratic Party. The legislation is expected to be submitted to the extraordinary Diet session that began on Oct. 24.

An advisory committee on the nuclear damage compensation system within the Japan Atomic Energy Commission (JAEC) had been discussing possible revisions since 2015 in part because of the huge compensation amount--now more than 8 trillion yen (\$71 billion)--facing Tokyo Electric Power Co. over the 2011 accident at its Fukushima No. 1 nuclear power plant.

Electric power companies had asked for some sort of limit in the law, given the situation at TEPCO.

One suggestion was to more clearly delineate the responsibility of the central government and the utilities for compensating victims of nuclear disasters.

A committee member who once worked in Keidanren (Japan Business Federation) supported setting a limit, saying the companies would face a serious management problem if they are unable to predict potential compensation risks.

In return, the central government would shoulder the compensation amount above a certain limit, the member proposed.

However, the committee could not reach an agreement, and no change was made to the provision that sets unlimited compensation responsibility on the part of the utilities.

Utilities will have to continue setting aside a maximum 120 billion yen for each nuclear plant it operates as insurance for a major accident.

Although the insurance amount would appear to be a sort of limit on the electric power companies, the utilities must also contribute to the Nuclear Damage Compensation and Decommissioning Facilitation Corp. (NDF), which provides assistance when compensation demands concerning a single nuclear plant exceed 120 billion yen.

The central government also contributes funds to the NDF.

Calls arose to raise the insurance limit for electric power companies beyond 120 billion yen. However, the insurance industry would not agree to any higher amount, and no change was made in the limit.

Some committee members brought up the topic of whether the central government's responsibility for compensation should be included in a legal revision.

The electric power industry said the central government should shoulder a greater portion of the compensation responsibility for nuclear accidents because it has continued to define nuclear energy as an important base-load energy source.

Members of the advisory committee brushed aside that suggestion, saying the public would never be convinced in light of the Fukushima accident and the various shortcomings revealed about TEPCO's management.

Other members cited the possibility that utilities would cut back on safety investment if they knew the central government would pay for compensation.

Discussions about the central government's responsibility never did get off the ground in the advisory committee, even though a number of recent court verdicts in civil lawsuits have awarded compensation while clearly stating the central government's responsibility for the Fukushima nuclear disaster.

The minor change to the law to allow electric power companies to more quickly begin provisional payments of compensation was proposed to address problems that arose after the Fukushima accident.

TEPCO took about six weeks to begin provisional payments to disaster victims. The delay, according to TEPCO, was because the utility had no idea about the maximum amount of compensation it would have to pay.

Under the proposed change, the central government will provide loans to utilities so they can immediately begin making provisional payments. Utilities will be obligated to compile guidelines that define the procedures for applying for compensation and making those guidelines widely known.

(This article was compiled from reports by Yusuke Ogawa and Senior Staff Writer Noriyoshi Ohtsuki.)

More apologies from TEPCO

October 30, 2018

Ex-TEPCO head apologizes to victims of 2011 nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201810300056.html>

THE ASAHI SHIMBUN

A former chairman of Tokyo Electric Power Co., operator of the crippled Fukushima No. 1 nuclear power plant, apologized to victims of the 2011 nuclear disaster but would not acknowledge responsibility.

"I deeply apologize to those who died, their bereaved families, injured people, local people and society at large," Tsunehisa Katsumata, 78, said Oct. 30 during the 33rd hearing of a trial at the Tokyo District Court of three former TEPCO executives accused of professional negligence resulting in death and injury as a result of the disaster.

The trio were indicted by an inquest of prosecution committee, comprising ordinary citizens, seeking accountability for the nuclear disaster.

Katsumata, who also served as president, is on trial with former vice presidents Sakae Muto, 68, and Ichiro Takekuro, 72.

Katsumata, who has pleaded innocent, was asked by his lawyer, "Does the president directly grasp each job (at the company)?" to which the defendant replied, "I believe that's almost impossible."

Referring to his position as chairman, Katsumata said the job did not entail day-to-day business operations.

"My direct contact with employees decreased and my external activities increased," he added.

Lawyers assigned the role of prosecutors said the three defendants gave the go-ahead in 2008 for anti-tsunami measures to be implemented based on the government's "long-term assessment" of offshore earthquake probability.

However, despite being told that a quake-triggered tsunami could reach as high as 15.7 meters, they put off doing anything for fear it would adversely affect the company's bottom line.

The lawyers cited two key meetings as evidence that Katsumata was in a position to predict a massive tsunami could strike the plant.

Referring to one meeting in February 2008, when Katsumata was president, a subordinate testified that anti-tsunami measures based on the government assessment had been approved.

Referring to another meeting, held in February 2009, when Katsumata was chairman, a director in charge of anti-quake measures said, "Some people said that tsunami of about 14 meters high could strike (following a megaquake)."

(This article was written by Mikiharu Sugiura and Chikako Kawahara.)

Ex-TEPCO chairman sorry for nuke accident but says he was not in control of utility in 2011

<https://mainichi.jp/english/articles/20181030/p2a/00m/0na/030000c>

TOKYO -- Former Tokyo Electric Power Co. (TEPCO) chairman Tsunehisa Katsumata apologized in the Tokyo District Court on Oct. 30 for the triple core meltdown that hit his company's Fukushima Daiichi Nuclear Power Station in northern Japan in March 2011.

- **【Related】** Denials dominate 1st trial questioning of ex-TEPCO VP over tsunami-triggered nuke disaster
- **【Related】** Denials dominate 1st trial questioning of ex-TEPCO VP over tsunami-triggered nuke disaster
- **【Related】** Whether tsunami predictable, damage avoidable focus of TEPCO nuclear disaster trial

He nevertheless explained that, as chairman, he was not in a position to control the president and other top managers of the power utility when radioactive fallout from the disaster drove hundreds of thousands of people from their homes. The accident occurred after the plant's cooling system failed due to a power outage triggered by a massive tsunami following the Great East Japan Earthquake.

At the beginning of his questioning at around 11 a.m., Katsumata, bowing his head, said, "As someone who served as president and chairman, I apologize for causing enormous trouble to those who lost their lives, their bereaved families and the injured."

When asked by his lawyer about what his role was as TEPCO chairman, Katsumata explained that he had already handed authority on executing business affairs to the president. "I advised the president upon his request. My job was to take care of people outside the company and maintain contacts."

Katsumata told the court in its first hearing in June last year that it was "impossible" to foresee a nuclear accident would be triggered by a tsunami.

Katsumata and former vice presidents Ichiro Takekuro and Sakae Muto have been indicted on charges of being responsible for the deaths of 44 patients at Futaba Hospital, near the Fukushima Daiichi plant. The victims died after they were forced to evacuate for many hours to avoid radiation spewing from the crippled power station. The three ex-TEPCO executives are accused of failing to take action to prevent the accident despite being able to foresee a massive tsunami could follow a major quake.

Earlier on Oct. 29, Takekuro was questioned at the district court before Katsumata.

When a lawyer representing the victims asked him what he imagined when he heard that tsunami as high as 15.7 meters could hit the Fukushima plant, Takekuro said, "I didn't imagine much."

All three defendants pleaded not guilty at their first court hearings last year. But the lawyer acting as the prosecutor in this trial has said Katsumata was aware of the need for countermeasures to ease the impact of tsunami based on discussions inside the company.

Despite Katsumata's explanation that he didn't have the control of the company after he became chairman in 2008, a former TEPCO employee said the ex-executive continued to retain effective authority to make decisions for the utility. He told a press conference three weeks after the nuclear disaster that tsunami "countermeasures were not sufficient."

Katsumata was known to be "razor-sharp" smart as he moved up the corporate ladder in the planning section, setting the utility's course and becoming president in 2002. His predecessor had stepped down over allegedly hiding trouble at a nuclear power plant. Katsumata also served as deputy chairman of the powerful Japan Business Federation (Keidanren) business group.

(Japanese original by Masanori Makita and Naotaka Ito, City News Department, and Mirai Nagira, Science & Environment News Department)

Not so cute



October 29, 2018

TEPCO apologizes for insensitive SNS posts over damaged nuclear plant

<https://mainichi.jp/english/articles/20181029/p2a/00m/0na/034000c>

This TEPCO post of a picture showing the No. 4 reactor building at its crippled Fukushima Daiichi Nuclear Power Station is accompanied by a hashtag reading "Kojo-moe," praising the facility.

TOKYO -- Tokyo Electric Power Co. (TEPCO) apologized on Oct. 29 after its official Twitter and Instagram accounts faced a wave of criticism online for carrying a picture taken inside the building housing the No. 4 reactor at its crippled Fukushima Daiichi Nuclear Power Station with a hashtag perceived as praising the facility.

- **【Related】** Scenes of Heisei: Were residents scattered by nuclear crisis beneficiaries or victims?
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- **【Related】** Putting tsunami countermeasures on hold at Fukushima nuke plant 'natural': ex-TEPCO VP

The picture in question showed the cooling pool for spent nuclear fuel rods inside the reactor building, where a hydrogen explosion occurred during the March 2011 nuclear disaster. Core meltdowns hit three of the other reactors at the power plant in northern Japan.

The pictured was posted to the TEPCO headquarters public relations account at around 11:51 a.m. on Oct. 29. A hashtag accompanying the picture read "Koji-moe" in Japanese, a label meant to show spectacular factory scenes that attract enthusiasts. This combination of the photo and the tag triggered a barrage of accusations that the company was "insensitive" and "inappropriate."

The power utility removed the picture around 2 p.m., and uploaded it again without the controversial tag. A TEPCO official explained that the tag, which was used to post pictures of other facilities, was used by mistake. "We were inconsiderate, and deeply apologize," the company said.

The TEPCO nuclear plant disaster, triggered by a massive tsunami from the Great East Japan Earthquake, released large amounts of radioactive materials into the air, causing thousands of people to flee their homes. Up to around 43,000 people still remain evacuated, according to the Fukushima Prefectural Government.

(Japanese original by Kazuhisa Soneda, News Layout Center)

TEPCO's tweet on Fukushima 'love-factory' fails miserably

<http://www.asahi.com/ajw/articles/AJ201810300034.html>

THE ASAHI SHIMBUN

October 30, 2018 at 16:10 JST

Tokyo Electric Power Co. quickly learned that Twitter users find nothing lovely, endearing or irresistibly cute about a damaged reactor building at its crippled Fukushima No. 1 nuclear power plant.

The utility apologized after coming under fire for posting a tweet carrying the hashtag “#kojo-moe” (love-factory) in Japanese along with a picture of the spent fuel pool on the top part of the No. 4 reactor building on Oct. 29.

“Kojo” is a term for factory or industrial plant. “Moe” is a slang word used to describe something that melts one’s heart or is irresistibly pretty or cute.

In recent years, the term “kojo-moe” has been used by factory enthusiasts for industrial structures considered beautiful, such as plants illuminated at night. It has also appeared in a number of photobooks of factories.

Soon after TEPCO’s tweet was posted, the utility’s official account was bombarded with critical replies.

One said, “How many lives do you think the nuclear accident ruined?”

The Great East Japan Earthquake and tsunami in March 2011 caused the meltdowns of three reactors at the Fukushima No. 1 plant. Radioactive substances were released into the atmosphere, and about 80,000 people in 11 municipalities in Fukushima Prefecture were forced to evacuate their homes.

More than 43,000 residents remain displaced.

The No. 4 reactor did not melt down, but its building was seriously damaged in a hydrogen explosion.

TEPCO swiftly deleted the tweet and posted an apology: “We deeply apologize for upsetting you.”

The account has reposted the photo but with no hashtag.

A TEPCO official in charge of public relations said the intention of the original tweet was to “widen public interest in (nuclear) technology and facilities.”

“We were not considerate enough in using a certain term for the hashtag,” the official said. “We offer our deepest apology.”

(This article was written by Daiki Ishizuka and Hiroshi Ishizuka.)

Nukes & Japan

November 2, 2018

In careful moves, Japan's nuclear industry makes a comeback

<http://www.asahi.com/ajw/articles/AJ201811020021.html>

REUTERS

IKATA, Ehime Prefecture--On a side street near a darkened shopping arcade full of abandoned storefronts in southwestern Japan, the Sushi Ko restaurant is unusually busy on a weekday.

Balancing a tray full of drinks, Sachiyo Ozaki said most of her restaurant's customers were there because of an industry shunned elsewhere: nuclear power.

"He drives a minivan to take workers to the plant," she said, gesturing towards a man sitting at the counter. Pointing to another man sipping a beer, she added, "And he works in construction, so they've been busy, too."

"We're all for nuclear power, and you can print that," Ozaki said.

In the mostly residential neighborhood around her restaurant, hotel rooms and local inns were also packed with workers preparing to reopen Shikoku Electric Power's Ikata nuclear plant, nestled next to Japan's inland sea at the base of the verdant Sadamisaki peninsula.

Nearly eight years after an earthquake and tsunami triggered nuclear meltdowns at Tokyo Electric Power's Fukushima No. 1 nuclear power plant, the battered industry is making a quiet and somewhat unexpected return in Japan.

Ikata is a poster child for that recovery. In September, a court reversed a decision that had idled Shikoku Electric's sole nuclear reactor for about a year, paving the way for the operator to re-open the facility last week.

Regional utilities like Shikoku Electric have aggressively fought a string of lawsuits since 2011, hiring veteran lawyers to beef up their legal teams. At the same time, they wooed towns where nuclear plants are based, visiting with residents door to door while the government kept up a stream of generous subsidies for local projects.

Thanks in large part to this strategy, Japan is on track to have nine reactors running in the near future.

That is a far cry from the 54 running before 2011--all of which were idled after the Fukushima disaster--but more than analysts and experts expected, considering it seemed at the time like the end of the road for the country's nuclear industry.

A Reuters analysis calculates that as few as six more reactors are likely to restart within the next five years, eight will mostly likely be mothballed and that the prospects for two dozen others is uncertain.

Despite that cloudy outlook, nuclear power recently overtook renewables like wind and solar in Japan's energy mix for the first time since Fukushima.

COURT BATTLES

Japan embraced nuclear power after World War II, spurred by the promise of clean energy and independence from foreign suppliers.

But the botched Fukushima disaster response sowed public distrust in the industry and the government.

Given that skepticism, some see a recent run of court victories by utilities as the resurgence of an alliance of industry, government and host communities that for decades promoted the construction of nuclear facilities.

"If our losing streak continues, we could see 20 to 25 reactors come back online," says Hiroyuki Kawai, a prominent anti-nuclear lawyer who represented citizens in a suit against Shikoku Electric.

Since 2011, hundreds of citizens represented by volunteer lawyers like Kawai have filed nearly 50 lawsuits against the Japanese government and utilities in 25 district and appellate courts.

In Ikata, Shikoku Electric spent months gaining approval for a restart from the tougher post-Fukushima regulator, rebooting one of its plant's three reactors in 2016. But in December 2017, an appellate court issued a temporary injunction keeping the reactor, already idled for routine maintenance, shut down for nine more months.

In response, the company pulled more staff into its legal department and drafted its head of nuclear power to supervise the team. The utility also recruited outside lawyers who had handled cases for other operators.

"There are only a handful of lawyers knowledgeable about nuclear litigation, so they're popular and sought after," said Kenji Sagawa, the deputy general manager of the company's Tokyo office.

Yoshiaki Yamanouchi, 76, began his career in nuclear litigation in 1973 when he represented Shikoku Electric in a landmark suit brought by Ikata residents seeking to stop the plant from opening.

He still represents the utility and works with other companies, advising younger lawyers fighting similar cases, which he calls "superficial," in far-flung district courts.

"Utilities, in particular Shikoku, have gotten much smarter about fighting for the plants they know they can reopen and mothballing others that would cost too much time and money," Yamanouchi said. The utility is decommissioning two of the three reactors at Ikata.

Shikoku Electric would not disclose how much it has spent fighting legal challenges, but said it was a fraction of the cost of idling a plant.

Every month a nuclear reactor sits inoperative, the utility spends 3.5 billion yen (\$31 million) for additional fuel at its conventional power plants. Shikoku has also spent 190 billion yen on safety upgrades to meet stricter rules set by the Nuclear Regulation Authority.

Activists have seen some victories. Western Japan's Kansai Electric Power Co., Inc., has had its reactors slapped with temporary injunction orders multiple times over the years. All of these decisions were later overturned by higher courts.

"Before Fukushima, these utilities won by default--now, they have to work harder," said Yuichi Kaido, a lawyer who has spent three decades dueling Yamanouchi in court.

Shikoku Electric still faces several lawsuits and injunction requests. A Hiroshima court rejected a request from residents to extend the suspension of the Ikata reactor on Oct. 26, a day before the operator restarted it.

A COMPANY TOWN

The quiet revival of Japan's nuclear industry is most tangible in rural areas like Ikata, which are home to the bulk of the country's nuclear plants.

Ikata is best known for its "mikan" mandarin oranges harvested on terrace farms on the sides of steep hills overlooking the Seto Inland Sea and Uwa Sea.

The town, with 9,500 residents, relies on nuclear power for a third of its annual revenue. Since 1974, Ikata has received more than 101.7 billion yen in such payments.

These funds literally built the town; Ikata's roads, schools, hospitals, fire stations and even five traditional "taiko" drums for festivals were all paid for with subsidies.

"My biggest struggle now is finding one or two more pillars for this town other than nuclear power," said Ikata Mayor Kiyohiko Takakado.

The town and utility's mutual dependence stretch back decades.

Kiyokichi Nakamoto was a city councilman in Ikata when he successfully wooed the utility to his hometown. On the walls of the dim parlor of his home are framed commendations from two prime ministers, thanking him for his contributions to Japan's energy policy.

"We were a poor village with only farming and fishing," the 90-year old said. Had the town failed to attract the plant, Ikata would have gone broke, Nakamoto said.

In the wake of the Fukushima disaster, Shikoku Electric campaigned to reassure residents of their plant's safety. Employees wearing the company's blue uniforms went from house to house to explain how their plant was different from Fukushima No. 1--and therefore safe.

"If something like Fukushima happened here, our reputation would be destroyed in an instant," said orange farmer Shigeto Suka, 54, as he checked the still-green mikan on branches.

He and other farmers in Yawatahama, a neighboring town 15 kilometers from the plant, worry that even a hint of contamination would devastate their brand.

After the 2011 nuclear disaster, Fukushima's farmers and fishermen were unable to sell their produce because of fears over contaminated food. Dozens of countries still have restrictions on Fukushima produce.

For others in the area, the Ikata plant feels like an inextricable part of life.

Hiroshi Omori, 43, spent most days over the summer at Shikoku Electric's visitors' house overlooking the Ikata plant. His three young children take free art classes there while Omori and other parents wait in air-conditioned rooms sipping water and tea.

But Ikata is projected to shrink to 5,000 residents over the next 20 years, and Takakado recently said he found it hard to imagine an industry that could replace nuclear power.

This year he joined dozens of other mayors across Japan to voice their support for the industry and ask the government to clarify its position on building new plants or replacing old ones.

"I'm just trying to prevent the town from losing even more people," he said.

Tokai 2 should be scrapped

November 8, 2018

EDITORIAL: Aging Tokai No. 2 reactor should be scrapped, not restarted

<http://www.asahi.com/ajw/articles/AJ201811080024.html>

The nation's nuclear watchdog on Nov. 7 formally approved a 20-year operating extension of the Tokai No. 2 nuclear power plant in Ibaraki Prefecture, which is approaching the end of its 40-year legal life span.

The decision by the Nuclear Regulation Authority effectively marks the end of government-mandated technical screening to allow Japan Atomic Power Co. to bring the offline plant back on stream.

But all sorts of questions and concerns remain.

There is not a good rationale for extending the life of the aging and currently idled single-reactor nuclear plant, which is located in the densely populated Tokyo metropolitan area.

Given the difficulties of evacuating the large population in surrounding areas if a serious accident occurs at the plant, the reactor should not be permitted to resume operations.

The rule that nuclear reactors should not in principle be allowed to operate for more than 40 years is designed to ensure that facilities based on outdated designs will be duly retired. This is a key component of the new stricter safety regulations introduced in the aftermath of the triple meltdown at the Fukushima No. 1 nuclear power plant in 2011.

The life of a reactor can be extended by up to 20 years if approved by the NRA. When the new regulations were introduced, the government said that such permission would be granted only in “a very limited number of highly exceptional cases.”

The problem is that there are no clear criteria for allowing such exceptions. In fact, the Tokai No. 2 has become the fourth reactor to receive the nuclear watchdog’s green light to operate beyond the 40-year period.

If such exceptional cases keep cropping up and become the norm, the 40-year rule could end up being a dead letter.

It is clearly necessary to review the regulations on aging reactors from the viewpoint of steadily reducing the nation’s dependence on nuclear power generation.

About 960,000 people live within a 30-kilometer radius of the Tokai No. 2 plant, making it the most densely populated site among the nation's nuclear facilities.

Local governments in the zone are required by law to develop emergency evacuation plans.

The municipalities that are subject to the requirement have been struggling to draft feasible evacuation plans in the face of many formidable challenges, including the difficulty of securing the means to transport elderly and disabled residents.

The outlook for local government support for the plan is also dismal. The plant operator needs to obtain the consent of the local governments of Ibaraki Prefecture and Tokai, a village where the plant is located, to restart the reactor. Besides, five cities around the facility also have the effective right to decide whether to go along with the plan.

The municipal assembly of Mito, one of the five cities, and the mayor of another, Naka, have already expressed their opposition to the plan.

Another big hurdle for bringing the reactor back online is the **huge cost of taking required safety measures**, which has been estimated at more than 174 billion yen (\$1.54 billion).

It is clearly impossible for Japan Atomic Power, which is on fragile financial footing, to raise the funds on its own, and the company is hoping for a financial injection from Tokyo Electric Power Co. and Tohoku Electric Power Co., two major electric utilities that have a major stake in the plant operator and buy electricity from the company.

But TEPCO, the operator of the crippled Fukushima No. 1 plant, has been put under effective state control as part of a program to bail out the utility facing a massive bill for compensation and cleanup work. It is now kept alive with huge amounts of taxpayer money.

It is highly doubtful whether TEPCO is qualified to rescue another troubled company.

If Japan Atomic Power starts work to restart the plant without obtaining the consent of local governments, it could end up wasting an enormous amount of money when the issue is raised later.

It should first **focus on talks with the local communities involved**. TEPCO, for its part, should rigorously assess the risks and the economic viability of supporting Japan Atomic Power's plan and provide satisfactory explanations about its decisions.

The local governments involved have a grave responsibility to ensure the safety of local residents. The Tokai No. 2 plant was also damaged by the tsunami generated by the magnitude-9.0 Great East Japan Earthquake that crippled the Fukushima plant in 2011, and had problems putting the reactor in a state of cold shutdown.

The prefectural and municipal governments are facing some weighty safety questions, including whether deep-seated anxiety about the plant among local residents can possibly be assuaged and whether they can develop effective emergency evacuation plans and systems.

These local entities need to ponder such questions as **their priority must be to ensure that local residents remain safe**.

Turnaround?

November 1, 2018

Japan's nuclear industry growing but likely to miss government's 2030 target

<https://www.japantimes.co.jp/news/2018/11/01/national/japans-nuclear-industry-growing-likely-miss-governments-2030-target/#.W9sHzzGNyos>

by Aaron Sheldrick **and** Osamu Tsukimori

Reuters

The domestic nuclear industry will miss a government target of providing at least a fifth of the country's electricity by 2030, analysis shows, but the sector is showing signs of life more than seven years since the Fukushima crisis.

With eight reactors running and one more set to come online in November, nuclear has this year overtaken nonhydro renewables in power output for the first time since the 2011 catastrophe, when all of the country's nuclear plants were idled.

Yet operators can expect as few as six units to restart in the next five years, and fewer than 20 by 2030, the analysis shows. That is far short of the 30 needed to meet the government target reiterated this year.

Based on the analysis, the world's third-largest economy may get about 15 percent of its power from nuclear in 2030, compared with a government target of 20 to 22 percent.

"It's impossible to meet the target, that's pretty much confirmed," said Takeo Kikkawa, an energy studies professor at Tokyo University of Science, who sat on an official panel that reviewed the country's energy policy this year.

He said he did not expect another round of restarts before 2020.

One major trading house predicts nuclear will account for 14 percent of power production in 2030, according to a presentation given at a private seminar this year and shown to Reuters.

Nuclear remains an unpopular energy option in Japan and the country will reboot only a fraction of the 54 reactors it had before the disaster.

Six reactors at the Fukushima No. 1 nuclear power plant are being dismantled in a decadeslong exercise that is fraught with technological challenges and radioactive waste. Operators have decided to decommission another 10 units across the country since Fukushima. The Nuclear Regulation Authority created new safety standards from scratch after the disaster highlighted failings in the industry and its overseers. All reactors must be re-licensed before restarting.

Yet Japan's nuclear industry, which before Fukushima operated the world's third-largest number of reactors and provided about 30 percent of the country's electricity, has staged a significant recovery.

The turnaround has exceeded expectations of analysts and the utilities themselves.

Kansai Electric Power and Kyushu Electric Power, for instance, have won approval to restart or are on course to win approval for all the reactors they applied to re-license.

Those units are far from Tokyo and are pressurised water reactors (PWR), unlike the boiling water reactor (BWR) designs favored in eastern Japan, including those that melted down at Fukushima.

Many court cases are pending for reactors in the eastern part of the country. Local political support varies, and the regulator is locked in disputes with operators over earthquake risk assessment.

The older BWR technology used in many of the reactors under review is also an issue because the stigma of Fukushima hangs over them.

“When you come to the BWRs, the issue becomes very politicized,” said Nobuo Tanaka, the chairman of the Sasakawa Peace Foundation who was the head of the International Energy Agency between 2007 and 2011 after a stint in the industry ministry.

The reputation of Fukushima plant operator Tokyo Electric Power Company Holdings Inc. also looms large, Tanaka said.

“Tepco does not have any support as a nuclear operator,” he said. The utility has to be removed from the equation before progress on BWR reactors can be made, he said.

Tepco has reached the first stage of approval, but faces strong opposition from local residents. But Japan’s utility lobby group said progress was being made.

“The safety reviews of PWR plants took time but they have been progressing steadily and there have been some developments in the BWR category as well,” Satoru Katsuno, the chairman of Japan’s federation of electric utilities and president of Chubu Electric, said of the outlook for restart approvals.

Chubu Electric has been locked in a dispute for years with the regulator over disaster resilience measures at its Hamaoka plant, which uses BWR reactors.

The analysis suggests that Japan will rely on fossil fuels, particularly liquefied natural gas and coal, as the pace of renewables expansion slows. That will make it harder to meet its emissions targets under international agreements.

The government estimates costs for replacement fuel — mostly LNG — to compensate for idled reactors totaling ¥14.6 trillion across the industry in the six years through March.

The lack of realistic energy targets makes it harder for the industry to plan for investment, utility officials say. And the issue of disaster resilience is not going away: a big earthquake struck Hokkaido in September and left a nuclear plant reliant on backup generators.

Stop forcing evacuees back!

December 2, 2018

Fukushima evacuees forced back into unacceptably high radiation zones

<https://beyondnuclearinternational.org/2018/12/02/fukushima-evacuees-forced-back-into-unacceptably-high-radiation-zones/>

One man is advocating for their protection

By Linda Pentz Gunter

A UN Special Rapporteur who last August joined two colleagues in sounding an urgent alarm about the plight of Fukushima workers, has now roundly criticized the Japanese government for returning citizens to the Fukushima region under exposure levels 20 times higher than considered “acceptable” under international standards.

He urged the Japanese government to “halt the ongoing relocation of evacuees who are children and women of reproductive age to areas of Fukushima where radiation levels remain higher than what was considered safe or healthy before the nuclear disaster seven years ago.”

Baskut Tuncak, (pictured at top) UN Special Rapporteur on hazardous substances and wastes, noted during a October 25, 2018 presentation at the UN in New York, as well at a press conference, that the Japan Government was compelling Fukushima evacuees to return to areas where “the level of acceptable exposure to radiation was raised from 1 to 20 mSv/yr, with potentially grave impacts on the rights of young children returning to or born in contaminated areas.”



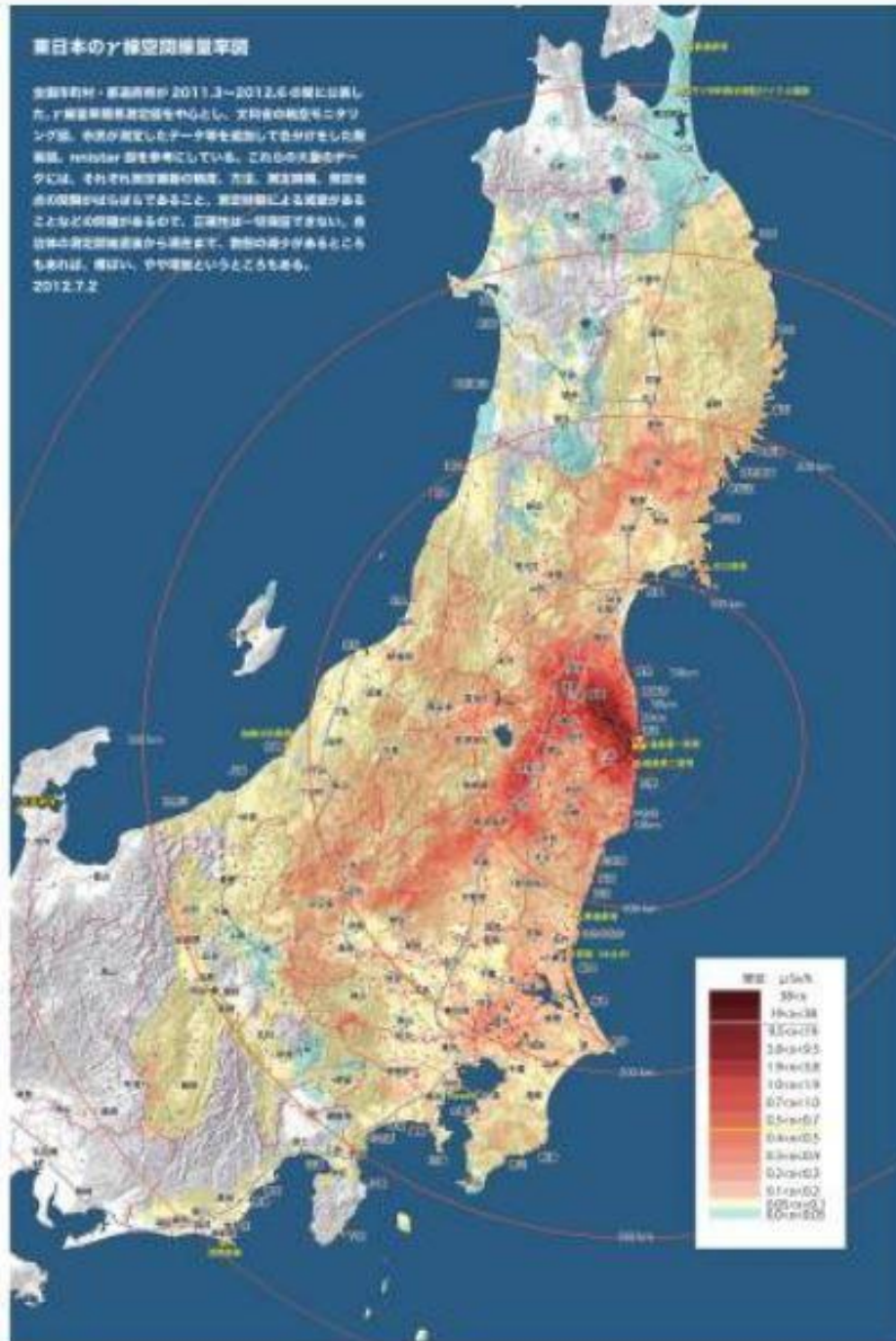
Typical housing for evacuees. 20 m² prefab cabins, evacuation site, Miharu, Fukushima, 46 km north west of Fukushima-Daichi Nuclear Power Plant. (Photo: Lis Fields.)

He described exposure to toxic substances in general as “a particularly vicious form of exploitation.”

In August, Tuncak, along with Urmila Bhoola and Dainius Puras, expressed deep concern about the Fukushima “cleanup” workers, who include migrants, asylum seekers and the homeless. They feared “possible exploitation by deception regarding the risks of exposure to radiation, possible coercion into accepting hazardous working conditions because of economic hardships, and the adequacy of training and protective measures.

We are equally concerned about the impact that exposure to radiation may have on their physical and mental health.”

Now, Tuncak is urging Japan to return to the 1 millisievert a year allowable radiation exposure levels in place before the 2011 Fukushima Daiichi disaster.



2011 map showing wide deposition of radioactive materials from Fukushima Daiichi nuclear power plant. (Courtesy 20 Millisieverts A Year. <https://lisfields.org/20msvyear/>)

In a revealing response to Tuncak's presentation at the UN, the delegate from Japan claimed that 20 msv "is in conformity with the recommendation given in 2007 by the International Commission on Radiological Protection." He also claimed that Tuncak's press release would cause people in Fukushima to suffer "an inaccurate negative reputation" that was "further aggravating their suffering," and that the government and people of Japan were "making effort with a view to dissipating this negative reputation and restoring life back to normal."

This view is deeply characteristic of the Abe government which is desperately attempting to "normalize" radiation among the population to create a public veneer that everything is as it was. This is motivated at least in part by an effort to dissipate fears about radiation exposure levels that will still be present during the 2020 Summer Olympics there, with events held not only in Tokyo but also in the Fukushima prefecture.

However, Tuncak corrected the delegate's information, responding that:

"In 2007, the ICRP recommended deployment of "the justification principle. And one of the requests I would make for the Japanese government is to rigorously apply that principle in the case of Fukushima in terms of exposure levels, particularly by children, as well as women of reproductive age to ensure that no unnecessary radiation exposure and accompanying health risk is resulting." Tuncak said Japan should "expeditiously implement that recommendation."

He also reminded the delegate that "the Universal Periodic Review of the Human Rights Council last year, did issue a recommendation to lower the acceptable level of radiation back down from 20 millisieverts per year to one millisievert per year. And the concerns articulated in the press release today were concerns that the pace at which that recommendation is being implemented is far too slow, and perhaps not at all."

During the press conference Tuncak noted that Japan is a party to the UN Convention on the Rights of the Child and that forcing evacuees back into areas contaminated to 20 mSv/yr was against the standards contained in that Convention. "We are quite concerned in particular for the health and well-being of children who may be raised or born in Fukushima," he said.



The Yamagata family in front of their quake-damaged pharmacy in Namie, Fukushima Prefecture, Japan April 12
2011 (VOA – S. L. Herman)

Earlier, Japan had sounded tacit agreement to reducing allowable exposure levels back down from 20 mSv/yr to 1 mSv/yr. But few believed they would carry this out given that it is virtually impossible to clean up severely contaminated areas in the Fukushima region back to those levels.

Bruno Chareyron, the director of the CRIIRAD lab (Commission de Recherche et d'Information Indépendantes sur la RADioactivité), noted in an August 17, 2018 Truthout article that:

"It is important to understand that the Fukushima disaster is actually an ongoing disaster. The radioactive particles deposited on the ground in March 2011 are still there, and in Japan, millions of people are living on territories that received significant contamination."

Of the cleanup process, Chareyron told Truthout: "The ground and most contaminated tree leaves are removed only in the immediate vicinity of the houses, but a comprehensive decontamination is impossible." He said in the article that the powerful gamma rays emitted by Cesium 137 could travel dozens of meters in the air. Therefore, the contaminated soil and trees located around the houses, which have not been removed, are still irradiating the inhabitants.

While the UN delegate from Japan claimed that no one was being forced to return and the decision rested with the evacuees alone, Tuncak expressed concern about coercion. "The gradual lifting of evacuation orders has created enormous strains on people whose lives have already been affected by the worst nuclear disaster of this century. Many feel they are being forced to return to areas that are unsafe, including those with radiation levels above what the Government previously considered safe."



UKRAINE:

- >10 mSv per year: no entry zone
- >5 mSv per year: mandatory migration zone
- >1 mSv per year: the right to migrate zone
- >0.5 mSv per year: entitled to free medical care zone

JAPAN:

- <20 mSv per year: fit to live in zone

Are Japanese more resistant to radiation than Ukrainians?

translated by Hervé Courtois

Recalling his efforts to protect Fukushima workers, Tuncak observed the irony that Japan had admitted that the death of a Fukushima worker from lung cancer was directly related to exposure to radiation at the stricken plant and "quite interestingly, the level of radiation that he was exposed to in the past five

years was below the international community's recommendation for acceptable exposure to radiation by workers."

Tuncak's report did not focus solely on Fukushima. It also included exploitation and abuse of Roma people, South Koreans exposed to a toxic commercial product and air pollution in London. During his UN presentation, he observed that "over two million workers die every year from occupational diseases, nearly one million from toxic exposures alone. Approximately 20 workers will have died, prematurely, from such exposures at work by the time I finish my opening remarks to you."

Before addressing the plight of Fukushima evacuees, he pointed out how "exposure to toxic pollution is now estimated to be the largest source of premature death in the developing world, killing more people than HIV AIDS, tuberculosis, and malaria combined." While noting that this problem exists to a greater or lesser degree the world over, he added that "pediatricians today describe children as born 'pre-polluted,' exposed to a cocktail of unquestionably toxic substances many of which have no safe levels of exposure."

Japan's decision to ignore pleas to halt repatriation of evacuees into high radiation exposure levels usually deemed unavoidable (but not safe) for nuclear workers, not ordinary citizens, will now tragically contribute to these numbers.

Mr. Baskut Tuncak is Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes. *As a Special Rapporteur, he is part of what is known as the Special Procedures of the Human Rights Council. Special Procedures, the largest body of independent experts in the UN Human Rights system, is the general name of the Council's independent fact-finding and monitoring mechanisms that address either specific country situations or thematic issues in all parts of the world.*

Japan to reconsider Turkey nuclear project

December 4, 2018

Japan to scrap Turkey nuclear project

https://asia.nikkei.com/Economy/Japan-to-scrap-Turkey-nuclear-project?fbclid=IwAR1E1VLkj7ksYepPmzqA3NRnO9TczA7a_iHYJeVezQN86Z-xZheO26fooCE

asia.nikkei.com - décembre 4, 2018

TOKYO -- A Japan-led public-private consortium is set to abandon a Turkish nuclear power project that had been touted as a model for Tokyo's export of infrastructure, Nikkei has learned.

The delayed project's construction costs have ballooned to around 5 trillion yen (\$44 billion), nearly double the original estimate, making it difficult for lead builder Mitsubishi Heavy Industries and its partners to continue with the plans.

The increase was due to heightened safety requirements in the wake of the 2011 meltdown at Japan's Fukushima Daiichi nuclear power plant. The recent fall in the Turkish lira has also contributed to the cost increases.

The decision to cancel the project, now in final negotiations among the parties, comes as a blow to Japan's nuclear industry, which is looking for avenues for growth overseas as it becomes increasingly unlikely that a new plant will be built at home post-Fukushima.

The Japanese and Turkish governments agreed in 2013 on the project, with an alliance of Japanese and French businesses centered on Mitsubishi Heavy to build four reactors in the city of **Sinop on the Black Sea**. Initial plans had construction beginning in 2017, with the first reactor coming online in 2023.

Mitsubishi Heavy submitted the revised cost estimate to the Turkish government in a late-July report. Though the company worked to rethink the overall costs, apparently no compromise could be reached with the Turkish government on financing terms, as well as prices for the electricity generated by the plant. Top Mitsubishi Heavy executives have said the company's decisions would be based "within the scope of what is economically rational."

Despite the nuclear plant's cancellation, the Japanese government intends to continue support for Turkey's energy sector, and new frameworks for cooperation are under consideration. Details remain to be settled, but building an advanced coal plant with reduced carbon dioxide emissions appears to be among the proposals on the table.

Japan's Ministry of Economy, Trade and Industry and nuclear plant builders such as Mitsubishi Heavy have worked in tandem to pursue nuclear projects overseas. With the Turkish plan canceled, the only remaining overseas project will be a plant in the U.K. planned by Hitachi. Hitachi signed a memo to advance the project in June with the British government, and parties are hurrying to iron out a final deal. But hurdles remain, including requests from London to trim the total cost.

Japan's effort to line up more overseas projects is aimed in part to maintain the scale of the country's nuclear power industry, as well as its skill in related technologies. If the energy sector remains mired in a harsh business environment, industry consolidation could accelerate.

In 2017, global investment toward building new nuclear projects plunged roughly 70% year on year to \$9 billion, according to the International Energy Agency. With safety costs rising, nuclear has grown less competitive with other forms of energy.

A number of aging Japanese reactors are set to be decommissioned soon, with Kansai Electric Power planning to scrap the Nos. 1 and 2 reactors at its Oi plant in Fukui prefecture, and Tohoku Electric Power the No. 1 unit at a plant in Miyagi Prefecture's Onagawa. Meanwhile, new nuclear projects have hit a standstill in the face of deep public wariness.

December 7, 2018

Japan reconsidering Turkey nuclear project

https://www3.nhk.or.jp/nhkworld/en/news/20181207_15/

The Japanese government and a consortium of private firms are reconsidering involvement in a nuclear power plant project in Turkey. They say the cost of the planned venture has skyrocketed.

The government has been supporting the consortium consisting of Mitsubishi Heavy Industries and other private Japanese firms.

The export of infrastructure is a pillar of the Abe administration's growth strategy.

After conducting research into the project, the consortium decided that the cost of building a nuclear power plant on the Black Sea coast would be over 35 billion dollars, more than double the initial estimate.

The increase is due to higher safety requirements implemented after the 2011 disaster at Japan's Fukushima Daiichi nuclear plant.

The Japanese side had asked Turkey to increase the purchasing price of power generated at the nuclear plant.

But Japanese Prime Minister Shinzo Abe and Turkish President Recep Tayyip Erdogan were unable to reach consensus in talks in Argentina earlier this month.

Japan's trade and industry minister Hiroshige Seko is expected to discuss the matter with Turkish government officials as early as January.

Taiwan changes targets

06.12.2018_No242 / News in Brief

Taiwan's Cabinet Confirms Plans To Abolish 2025 Nuclear Phaseout Target

<https://www.nucnet.org/all-the-news/2018/12/06/taiwan-s-cabinet-confirms-plans-to-abolish-2025-nuclear-phaseout-target>

Policies & Politics

6 Dec (NucNet): Taiwan's cabinet today announced it has agreed to abolish the target it had previously set of making Taiwan a nuclear-free country by 2025, instead opting to make the planned nuclear phaseout a more long-term objective.

The announcement follows a referendum last month in which voters decisively rejected the nuclear phaseout, 59% to 41%.

The referendum asked whether voters agreed to repeal a paragraph in Article 95 of the Electricity Act, which states that "all nuclear-energy-based power-generating facilities shall cease to operate by 2025".

Press reports in Taiwan quoted cabinet spokeswoman Kolas Yotaka as telling a press conference today that the cabinet had agreed to delete Article 95-1 of the Electricity Act and that the proposal would be sent to the Legislative Yuan, or parliament, for consideration.

Ms Totaka said that during the meeting, Premier Lai Ching-te said the government's goal of promoting a non-nuclear Taiwan remained unchanged, but the deadline will be cancelled, according to the report.

The so-called 2025 Non-Nuclear Homeland goal was a policy pledged by president Tsai Ing-wen during the 2016 presidential election. The goal was to phase out nuclear power by 2025, while increasing the percentage of renewable energy and natural gas, and reducing the use of coal.

Taiwan has four commercially operational nuclear power reactors at two sites – Kuosheng and Maanshan. According to data by the International Atomic Energy Agency, nuclear power provided about 9% of Taiwan's electricity output in 2017.

Chinshan, Taiwan's third nuclear power station, has two units which were permanently shut down earlier this month, according to the IAEA. Operator Taipower announced yesterday that it intends to decommissions Chinshan-1.

Construction of a fourth nuclear power station at Lungmen was suspended following the March 2011 Fukushima-Daiichi accident in Japan. Two of four planned units were almost completed at the time the project was discontinued.

Morita's promises and nuclear waste



The area where construction of a possible final disposal site for highly radioactive nuclear waste was considered in Minami-Osumi, Kagoshima Prefecture, on Nov. 29. (Hiraku Toda)

December 20, 2018

Mayor confirms 'loans,' denies ties to nuclear waste site

<http://www.asahi.com/ajw/articles/AJ201812200046.html>

MINAMI-OSUMI, Kagoshima Prefecture--The mayor here received 8 million yen (\$71,500) in unreported "loans" but returned the money apparently after lenders complained he wasn't following through on promises to bring a nuclear waste disposal site to the town.

Toshihiko Morita, 59, told a news conference on Dec. 20 that he accepted a total of 10 million yen from four people over two occasions before the mayoral election in April 2009.

But he emphasized that the money was "personal loans" for his business and had nothing to do with his political activities.

Three of the four individuals who provided the money told The Asahi Shimbun that Morita had asked them for election expenses.

The three--two heavyweights in the town and a director at a Tokyo trading house with ties to the nuclear industry--also said they wanted Morita to promote Minami-Osumi as a host of a final disposal site for nuclear waste, a potentially lucrative project that has been shunned around Japan.

In May 2009, shortly after he was elected mayor, Morita wrote a letter of proxy saying he would give the Tokyo director all the authority needed to lobby and negotiate with relevant parties to bring a final disposal site to the town.

Morita denied any relation between the money he received and the letter of proxy.

The three individuals said that in October 2017, they demanded Morita return their money, citing no progress in courting the nuclear waste facility.

The following month, Morita repaid the 8 million yen.

It was not clear if the mayor repaid the additional 2 million yen, nor the identity of the person who provided that money.

According to sources familiar with the matter, the three officials gave 3 million yen to Morita's side in January 2009 and 5 million yen on April 3 the same year, right before the official mayoral election campaign kicked off.

Although Morita said the 8 million yen was a personal loan, he did not pay interest or list the money in his official financial statements.

An official in charge of Morita's campaign told The Asahi Shimbun that the money was accepted as a "campaign fund." But Morita's election campaign income and expenditure report did not list the sum, a possible violation of the Public Offices Election Law.

That campaign report was destroyed after the expiration of the three-year preservation period set by the town.

Morita said he will correct the reports “if there are flaws.”

In 2012, the year after the triple meltdown at the Fukushima No. 1 nuclear plant, the Minami-Osumi town assembly unanimously adopted an ordinance rejecting the disposal of nuclear waste and nuclear facilities in its jurisdiction.

In April 2013, Morita was re-elected on a campaign promise not to allow such facilities in the town. However, the three officials said that Morita privately told them until April 2017, when he was elected for a third time, to wait a bit longer because he still planned to bring the disposal site to the town.

The central government since 2002 has been looking for municipalities to host the final disposal sites for highly radioactive waste produced by dozens of nuclear power plants across the country.

But none has volunteered despite the financial incentives. If a local government allows a siting study as a prospective site, it will be offered 1 billion yen a year for the study and 2 billion yen a year for a boring and additional surveys.

In a report released in July 2017, the Ministry of Economy, Trade and Industry, which oversees the nuclear industry, described potential candidate sites across the country based on geological and other factors. The report said most of the land in Minami-Osumi is “favorable” as a location for a dumping ground.

The town, with a population of nearly 7,300 on the southern tip of the main island of Kyushu, considered hosting a final disposal site in 2007, when Morita’s predecessor was in office.

Morita said he will continue to oppose the hosting of the radioactive waste disposal site.

Focusing on nukes will lead Japan nowhere

December 25, 2018

Editorial: Japan must ditch nuclear plant exports for global trends in renewable energy

<https://mainichi.jp/english/articles/20181225/p2a/00m/0na/011000c>

Projects to export nuclear power plants, a pillar of the "growth strategy" promoted by the administration of Prime Minister Shinzo Abe, appear to be crumbling.

- **【Related】** Hitachi may freeze British nuclear project due to swelling costs
- **【Related】** Effects of suspected radiation exposure seen in Fukushima wild monkeys: researchers
- **【Related】** Residents of nuclear crisis hit Namie to sue TEPCO, gov't after settlement talks fail

Factors behind the failures include ballooning construction costs due to strengthened safety standards after the triple core meltdowns at Tokyo Electric Power Co.'s (TEPCO) Fukushima Daiichi Nuclear Power Station in March 2011, and growing anti-nuclear sentiments around the world.

Nothing else can be said but that the export projects have effectively failed. The prime minister's office and the Ministry of Economy, Trade and Industry must bear the responsibility of continuing to promote these exports despite a massive change in the attitude toward nuclear power plants.

"We are really stretched to our limit," Hitachi Chairman Hiroaki Nakanishi recently said of the company's nuclear power plant construction plan in Britain. The statement came at a regular press conference of the Japan Business Federation, or Keidanren, indicating that continuing the project is not feasible.

Hitachi coordinated closely with the Japanese government to advance the U.K. project. The company was to build two nuclear power reactors in midwestern Britain through a local subsidiary, and to start operating the facilities in the first half of the 2020s.

But, the total estimated cost of the project has skyrocketed from the initial figure of 2 trillion yen to 3 trillion yen due to growing safety measure costs. Hitachi, hoping to distribute financial risk, sought investments from major power utilities and other firms, but the negotiations hit a snag due to the lowered profitability of the project.

In a bid to secure profits at an early stage, Hitachi requested that the British government raise the price of the electricity to be generated by the plants, which was guaranteed to be purchased in advance. This arrangement also hit a wall as confusion spread in the British political sphere over the nation's planned exit from the European Union. Hitachi, which has a stake in the local subsidiary, would lose some 300 billion yen if the project was cancelled.

Similar trouble has arisen in Turkey. A plan to export nuclear power plants, which began from a close relationship between Prime Minister Abe and Turkish President Recep Tayyip Erdogan, has also run aground.

Under the original plan, Mitsubishi Heavy Industries and other businesses were to build four mid-sized reactors in Turkey along the coast of the Black Sea at a total estimated cost of 2.1 trillion yen. The amount has more than doubled to 5 trillion yen, due in part to increased cost estimates for earthquake-proof measures. This development now requires the Japanese and Turkish governments to extend additional financial support for the project, but the two sides have apparently failed to reach an agreement.

The Abe administration has thrown its weight behind the export of nuclear power plants as a major element of its economic "growth strategy," with the trade ministry choreographing the moves for the projects. The ministry regards nuclear power generation as one of the main sources of power generation, always protecting and promoting the nuclear power industry.

However, after the Fukushima nuclear disaster in 2011, building such plants within Japan has become difficult, and the ministry hoped to maintain the size of the nuclear power industry through exports and the transference of relevant technologies and human resources to the next generation. But this has ignored the fact that international trends have shifted since the disaster.

The construction cost for nuclear power plants has grown exponentially with the increased focus on safety measures, while renewable energy sources such as solar power have become cheaper with the rapid expansion of their use. As such, the relative price competitiveness for nuclear power reactors has declined; it can no longer be called an "inexpensive energy source."

According to the International Energy Agency (IEA), global investments for new nuclear power plant construction in 2017 dropped to 30 percent of the previous year's figure. Global policy is moving away from nuclear power plants and instead tipping toward renewable energy sources.

The failure to reflect this trend led to the huge losses incurred by Toshiba Corp., which bought Westinghouse Electric Co. with backing from the trade ministry to pursue its troubled nuclear power projects in the United States.

In 2012, a national referendum in Lithuania voted down a project to build a Hitachi nuclear power plant, and then in 2016, Vietnam scrubbed a similar construction plan. The same year, Japan signed a nuclear cooperation agreement with India, eyeing exports of nuclear power plants despite concerns about the proliferation of nuclear materials to the nuclear weapon state outside of the Nuclear Non-proliferation Treaty. Still, the export plan has yet to materialize. It is clear that the export of nuclear power plants has been backed into a corner for quite some time already.

It is Japan that caused one of the world's worst nuclear accidents, and is now working on decommissioning the damaged reactors in a process that will take decades to complete. Many people in Japan hold deeply rooted feelings against the government's placement of nuclear power plant exports as a pillar of the nation's growth strategy.

In response, the government has simply justified the projects by saying they will contribute to developing countries with a growing power demand by offering a cheap source of power to support their economic growth. Rising construction costs, however, has rendered this explanation moot.

Japan still has many nuclear power plants to run, and the decommissioning of older plants will soon be in full-swing. The latest technology and skilled experts are vital for these projects to be completed successfully.

Continuing to focus on nuclear power export, however, will lead Japan nowhere. The government should take another look at global trends, and review the basis of its nuclear power policy to rid Japan of nuclear power as soon as possible.

They "postponed" anti-tsunami measures

December 26, 2018

5-year prison terms sought for former TEPCO executives

<http://www.asahi.com/ajw/articles/AJ201812260052.html>

By SHUNSUKE ABE/ Staff Writer

Prosecutors on Dec. 26 demanded five-year prison terms for three former executives of Tokyo Electric Power Co. over the disaster caused by a tsunami slamming into the Fukushima No. 1 nuclear power plant.

“It was easy to safeguard the plant against tsunami, but they kept operating the plant heedlessly,” the prosecution said at the trial at the Tokyo District Court. “That led to the deaths of many people.”

Tsunehisa Katsumata, 78, former chairman of TEPCO, Sakae Muto, 68, former vice president, and Ichiro Takekuro, 72, former vice president, are standing trial on charges of professional negligence resulting in death and injury in connection to the triple meltdown at the plant in 2011.

According to the prosecution, the failure of the three to take countermeasures against tsunami led to the deaths of 44 people and the injuries of many others.

Many of them were hospital patients who were forced to evacuate when the nuclear crisis unfolded.

The defendants have all pleaded innocent. They said they had no way of predicting a tsunami of the height that inundated the Fukushima plant following the Great East Japan Earthquake on March 11, 2011.

Prosecutors had dropped the case against the three, but they were mandatorily indicted by an inquest of prosecution committee comprising ordinary citizens.

Lawyers are acting as prosecutors in the trial.

Shozaburo Ishida of the prosecution side said if a nuclear accident occurs, it results in an irreparable situation in which radioactive materials are spread.

He said the three defendants, who were in the utility’s top management at the time of the Fukushima disaster, should be held responsible because they failed to pay close attention to the safety of the plant.

The prosecution accused the three of “postponing” anti-tsunami measures despite learning that an in-house analysis showed that a tsunami of up to 15.7 meters in height could hit the Fukushima No. 1 nuclear plant.

The plant sits on land 10 meters above sea level.

According to the prosecution, the three gave the nod to anti-tsunami measures in 2008 based on a government assessment report about the probability of earthquakes striking Japan.

However, they stalled in taking the necessary steps, the prosecution said.

During the trial, the defendants denied the credibility of the government's long-term assessment report.

They also said "15.7 meters" was a preliminary figure, and that asking the Japan Society of Civil Engineers to evaluate the appropriateness of TEPCO's projection does not amount to "postponing" anti-tsunami measures.

Corruption endemic to Olympics process

January 12, 2018

VOX POPULI: Corruption seems to be endemic to the Olympic process

<http://www.asahi.com/ajw/articles/AJ201901120028.html>

Vox Populi, Vox Dei is a daily column that runs on Page 1 of The Asahi Shimbun.

The job of Olympic consultants is said to gather--and sell--accurate information concerning members of the International Olympic Committee to the cities bidding for the Olympic Games.

The process of information gathering is so thorough that the consultants even go so far as to mine each IOC member's personal data, such as whether the individual is happily married, how many children he/she has, if there is any topic he/she resents discussing, and so on.

In 1998, a bribery scandal surfaced in connection with Salt Lake City's candidature for the 2002 Winter Olympics. Many IOC members were forced to resign for accepting expensive gifts that ranged from cash to a scholarship for a member's son.

After this scandal, the IOC banned visits by its members to candidate cities, thereby blocking direct contact between the parties.

But ironically, this opened the doors wide to the Olympic consultancy business. "No successful bidding without consultants" became an axiom.

And now, with next year's Tokyo Olympics drawing near, another allegation of corruption has surfaced. Tsunekazu Takeda, president of the Japanese Olympic Committee, has been under investigation by French judicial authorities. The allegation against the Japanese bidding committee is that payments it made to a Singaporean consultancy firm were meant as bribes for IOC members.

Takeda was questioned by prosecutors in Paris last month.

"Revenge is a dish best served cold" is a saying that originated in France, a nation that prides itself on its gourmet tradition. It means that anyone planning a revenge should be patient and plan thoroughly.

One fleeting suspicion that arose in my mind was that the French could be trying to get even with us Japanese for indicting Carlos Ghosn, a much-respected figure in France.

After all, there is the Japanese saying, "Edo no kataki wo Nagasaki de utsu," which may translate as "to take revenge on someone in an unlikely place."

But, no, matters are obviously much more complex than I had imagined for even a second.
In any case, just when Japan seemed to be getting ready for the big event next summer, we get hit with this disturbing development so early in the new year.
The Olympics are a truly tricky business.
--The Asahi Shimbun, Jan. 12

* * *

Vox Populi, Vox Dei is a popular daily column that takes up a wide range of topics, including culture, arts and social trends and developments. Written by veteran Asahi Shimbun writers, the column provides useful perspectives on and insights into contemporary Japan and its culture.

Promoting Fukushima food in Hong Kong

February 5, 2019

VOX POPULI: Hong Kongers knock back Fukushima sake, despite food ban

<http://www.asahi.com/ajw/articles/AJ201902050032.html>

About five years ago, I saw a poster at a Japanese restaurant in Hong Kong that declared in large print, "Absolutely no rice or any other food from Fukushima, Japan, used here."
The overly harsh tone made me sigh.

When I visited Hong Kong recently for the first time in many years, I was surprised by the popularity of sake from Fukushima Prefecture. Locals seemed to be thoroughly enjoying "Sharaku," "Toroman" and other noted brands from the Aizu area in western Fukushima Prefecture.

People's perceptions must be changing.

According to a Fukushima prefectural government official, 54 countries and regions around the world imposed restrictions on imports from the prefecture in the immediate aftermath of the 2011 earthquake and tsunami, which triggered the accident at the Fukushima No. 1 nuclear power plant.

The number is down to 24 today, of which Hong Kong is still one.

Last summer, the government of Hong Kong lifted restrictions on imports from Gunma, Ibaraki and two other prefectures around Fukushima. The last remaining restrictions are on vegetables, fruits and dairy products from Fukushima.

Fukushima Governor Masao Uchibori visited Hong Kong in late January.

Hong Kong was Fukushima's top customer before the 2011 disaster. Eighty percent of the prefecture's agricultural exports went there.

Uchibori strongly asserted the safety of Fukushima's produce, but failed to obtain a commitment from the Hong Kong government to resume imports.

"(Hong Kong's) perceptions about Fukushima (are unchanged), and anxieties, worries and concerns remain deep-rooted," the governor noted.

He must have sensed that acutely from interacting with locals.

When I was stationed in Hong Kong in the past, even for a short while, I was aware of the high trust locals placed in Japanese food.

"It's expensive, but safe," I was told repeatedly.

Perhaps the lingering negative publicity surrounding Fukushima produce is the flip side of the absolute trust people used to have for many years.

Whether at home or abroad, it is hard to focus on a goal when fighting negative publicity. Still, I felt encouraged by how much Hong Kong citizens seemed to be enjoying Fukushima's sake.

This time, I didn't see a single poster proclaiming "absolutely no (Fukushima food)."
--The Asahi Shimbun, Feb. 5

January 26, 2019

Governor promotes Fukushima food in Hong Kong amid post-disaster import restrictions

<https://www.japantimes.co.jp/news/2019/01/26/business/governor-promotes-fukushima-food-hong-kong-amid-post-disaster-import-restrictions/#.XF2wyaBCeos>

JJI

HONG KONG - Fukushima Gov. Masao Uchibori, on a visit to Hong Kong which kicked off Thursday, has worked to promote the safety of food from his prefecture, home to the heavily damaged Fukushima No. 1 nuclear plant.

Hong Kong introduced restrictions on food imports from the prefecture after a triple meltdown occurred at Tokyo Electric Power Company Holdings Inc.'s Fukushima No. 1 nuclear power station, which was inundated by tsunami following the Great East Japan Earthquake on March 11, 2011.

Uchibori is the first Fukushima governor to visit Hong Kong after the disasters for the promotion of local food products.

During his stay, Uchibori met with officials of an industry association related to Japanese food. He also paid a courtesy call on a senior Hong Kong government official in charge of import regulations.

The official said that Hong Kong will consider whether to relax the restrictions on Fukushima food while closely watching the pace of recovery in food imports from four nearby prefectures —Ibaraki, Tochigi, Gunma and Chiba — according to Uchibori. Hong Kong eased its restrictions on food from the four prefectures last year.

At a seminar for Hong Kong journalists on Friday, Uchibori stressed that he will redouble efforts to ease concerns over Fukushima food as much as possible, noting that more than 80 percent of all exports of Fukushima-made agricultural, forestry and fishery products had been shipped to Hong Kong before the disasters.

(USS) NRC votes to ignore lessons of Fukushima disaster

January 29, 2019

<http://www.beyondnuclear.org/home/2019/1/29/nrc-commissioners-in-partisan-vote-slash-agency-rulemaking-o.html>

NRC Commissioners in partisan vote slash agency rulemaking on severe accident upgrades for US reactors
On January 24, 2019, a majority of five voting members of the U.S. Nuclear Regulatory Commission (NRC) rolled back more than seven years of the agency's technical study on the hazards and lessons learned for US reactors from Japan's Fukushima nuclear catastrophe. In a vote along party lines, the three Presidentially appointed Republican Commissioners voted against incorporating years of new science and management strategies to safely contain a severe nuclear accident following extreme earthquakes and flooding. **The Commission vote drastically undercut a requirement to industry operators to make safety upgrades at U.S. nuclear power stations that were built decades ago.** Instead of requiring operators to upgrade, the Commission reduced the rule to allowing industry voluntary compliance, effectively stripping the agency of enforcement action. Nuclear power stations will now only pay but a small fraction of the cost for implementing Fukushima upgrades determined as necessary by agency staff and independent nuclear safety experts.

<image: http://www.beyondnuclear.org/storage/US-NuclearRegulatoryCommission-Seal.png?_SQUARESPACE_CACHEVERSION=1548972824169>

The Commission majority voted to allow licensees to ignore modern methods and science to quantify and qualify the hazards from extreme natural events including earthquake and flooding on nuclear safety as demonstrated in the Fukushima catastrophe. Instead, operators will be allowed to rely upon the outdated hazard analysis that the original reactor design was licensed under, also known as “design basis accidents.”

As Fukushima's GE Mark I boiling water reactors were not designed and constructed to withstand the extreme flooding of the 50-foot tsunami generated by a 9-magnitude earthquake, the nuclear power plant site experienced three severe accidents that led to multiple reactor core meltdowns and breaches of containment. US reactors are similarly not adequately prepared for extreme but real world events such as unprecedented flooding created from climate change and “beyond design basis accidents” earthquakes.

“This outcome is a complete U-turn for NRC,” said appointed Democrat Commissioner Jeff Baran in his notated vote sheet for the protection of the public safety from nuclear accidents. Baran charged his Republican members of the Commission as gutting the rule of key Fukushima lessons learned and actions needed to address critical safety vulnerabilities in US reactors. Commissioner went on to say, “The changes to the final rule supported by the majority will, in my view, significantly weaken what will be the agency's most enduring action as a result of lessons learned from the Fukushima Daiichi accident. In doing so, the Commission will have systematically and inexplicably unraveled a framework for addressing beyond-design-basis external events carefully crafted as a collaborative effort between the NRC staff and our external stakeholders over the past seven and a half years.”

NRC Commissioner Stephen Burns, who was equally disturbed by the Commission vote, and quoted from the official report of the National Diet of Japan's Fukushima Nuclear Accident Independent Investigation Commission, where Chairman Kiyoshi Kurokawa said, “The earthquake and tsunami of March 11, 2011 were natural disasters of a magnitude that shocked the entire world. Although triggered by these cataclysmic events, the subsequent accident at the Fukushima Daiichi Nuclear Power Plant cannot be regarded as a natural disaster. It was a profoundly manmade disaster that could and should have been foreseen and prevented. And its effects could have been mitigated by a more effective human response.”

Voting to ignore some of the most important lessons of Fukushima, strip the agency of enforcement capability and shield an already financially beleaguered U.S. nuclear power from the cost of staff recommended actions and upgrades were Chairwoman Kristine Svenicki, Commissioner Annie Caputo and Commissioner David Wright.

Letter from Amb. Murata about the Olympics

Dear Friends,

The International Community is increasingly concerned about the Tokyo Olympic Games.

The February 3, 2019 edition of the *Washington Post* published an article about the present tragic situation in

Namie town in Fukushima prefecture where family separations continue and vacant houses are being torn down.

(https://www.washingtonpost.com/world/asia_pacific/near-site-of-fukushima-nuclear-disaster-a-shattered-town-and-scattered-lives/2019/02/02/0dea7886-1e8c-11e9-a759-2b8541bbbe20_story.html?noredirect=on&utm_term=.43dcd79b04f)

The Tokyo Olympic Games cannot serve as a perfect cover-up for the present situation in Fukushima.

The February 1, 2019 edition of the *People's Daily of China* carried an article on President Xi-Jinping's meeting with

President Bach of the IOC in which the former repeatedly referred to the importance of integrity in making preparations for the Winter Olympic Games in Beijing. His concern seems to reflect the impact of the

serious problems connected to the Tokyo Olympic Games, including the latest actions of the French prosecution

office in investigating possible corruption. For this reason, President Xi's remarks are considered opportune and important.

We notice mounting criticism regarding the hosting of baseball and softball games in Fukushima prefecture.

This criticism can no longer be ignored for obvious reasons.

The February 6, 2019 edition of *Sankei* newspaper reported that demonstrations had taken place in London

protesting against Japan's restarting of commercial whaling and calling for a boycott of the Tokyo Olympic Games.

The IOC and the JOC should also bear in mind that the International Community has not forgiven the huge, immoral

lies claiming the Fukushima Nuclear Accident was "under control" or that "July-August is ideal" for hosting the Olympic Games.

Please allow me to count on your understanding and support.

Mitsuhei Murata

Former Japanese Ambassador to Switzerland

Reconstruction at all costs

February 8, 2019

Japan's Reconstruction Agency to air ad for Fukushima products on TV, online and at cinemas

https://www.japantimes.co.jp/news/2019/02/08/national/japans-reconstruction-agency-air-ad-fukushima-products-tv-online-cinemas/#.XF2v_6BCeos

JJI

The Reconstruction Agency said Friday that it will run a television commercial advertising farm, fishery and forestry products made in Fukushima Prefecture for about a week from Saturday.

The 30-second spot is aimed at dispelling harmful rumors about the safety of products from the prefecture following the nuclear meltdown at Tokyo Electric Power Company Holdings Inc.'s Fukushima No. 1 power plant, which was heavily damaged in the March 2011 earthquake and tsunami.

The agency hopes to capitalize on rising interest in Fukushima Prefecture ahead of the eighth anniversary of the disaster on March 11.

The commercial, which will also highlight tourism spots in the prefecture, will be broadcast nationwide. It will also be run at movie theaters and online.

The agency has also created a section on its website to explain the current conditions in Fukushima Prefecture, helping visitors to learn about radiation and progress in reconstruction efforts.

TEPCO's unacceptable stance on compensation

February 9, 2019

EDITORIAL: TEPCO firmly at fault for balking at payouts to disaster victims

<http://www.asahi.com/ajw/articles/AJ201902090021.html>

Nearly eight years have passed since the 2011 Fukushima nuclear disaster, yet many victims seeking compensation for damages from Tokyo Electric Power Co., operator of the crippled nuclear plant, face uncertainty as the talks are getting nowhere. This is an outrageous situation.

The number of cases in which TEPCO rejected an out-of-court settlement proposal from a government body for so-called alternative dispute resolution, or ADR, has increased sharply since last year.

The utility has refused to accept many ADR deals proposed by the Nuclear Damage Compensation Dispute Resolution Center in response to collective requests from groups of residents in areas around the Fukushima No. 1 nuclear power plant.

The center was established by the government in 2011 to help settle compensation disputes between TEPCO and victims of the nuclear accident.

In about 20 cases involving some 17,000 residents, TEPCO has refused the center's proposals, causing the ADR process to be canceled.

The residents can either apply for an individual ADR deal to be brokered by the center or file a damages lawsuit. But these steps are time-consuming and costly.

The dispute resolution center, established to facilitate compensation payments to people who have suffered damage from the Fukushima accident, has successfully mediated more than 18,000 settlement agreements, but the institution is now facing a brick wall.

The proposals rejected by TEPCO call for larger payments than the amounts suggested in the guidelines set by the Dispute Reconciliation Committee for Nuclear Damage Compensation, a committee within the education and science ministry.

TEPCO says it cannot offer an "across-the-board increase" in the amounts of compensation. It also says some of the claims concern issues that are not clearly linked to the accident.

It is clear that the company is trying to prevent its already huge compensation payments from ballooning further.

The utility's stance on this issue deserves to be roundly criticized.

TEPCO has made "three pledges" concerning compensation. It has promised to pay compensation to all victims "down to the last one," ensure "swift and considerate" payments and "respect" settlement proposals made by the dispute resolution center.

But TEPCO has failed to match its words with action. Both the center and the ministry have repeatedly urged the company to fulfill its pledges.

The reconciliation committee's guidelines are important criteria, but they should not be seen as absolute standards that cover all cases and possible changes in damage situations over time.

Even in trials, there is always certain latitude for the findings of fact and the interpretation of rules. This is all the more so for ADR because the approach is designed to promote dispute settlements through simple procedures.

If it really intends to act in line with the spirit of the "pledges" and take responsibility for the dire consequences of the severe accident, TEPCO should accept the center's settlement proposals unless they contain extremely unreasonable elements.

Much of the blame for the situation should also be placed on the government, especially the Ministry of Economy, Trade and Industry, which regulates the electric power industry.

The government has promoted nuclear power generation as a national policy and is now effectively TEPCO's major shareholder.

It should supervise and guide the company with the urgency and vigor required by the situation.

Factors that have aggravated the compensation negotiations include shortcomings in the guidelines. Established shortly after the accident, the guidelines, despite several revisions, are out of tune with the realities of the situations that have grown increasingly complicated and diversified over years due to lasting repercussions from the disaster.

The reconciliation committee should carefully examine the realities and start working to revamp the guidelines. The panel seems to be inclined to wait for court rulings on damages suits filed by some victims. But that would only cause further delays in providing relief to victims.

The committee's own relevance is also at stake.

TEPCO ignored reports on fires and other problems from its nuke plants

February 14, 2019

TEPCO sat by idly on reports of fires, glitches at nuclear plants

<http://www.asahi.com/ajw/articles/AJ201902140054.html>

By YUSUKE OGAWA/ Staff Writer

Tokyo Electric Power Co. ignored reports on fires and other problems from its nuclear power plants and didn't even bother to share the information in-house or consider precautionary measures, the nuclear watchdog revealed.

The Nuclear Regulation Authority decided Feb. 13 it will investigate the failure by TEPCO's headquarters to tackle the problems reported by its three facilities: the Kashiwazaki-Kariwa nuclear plant in Niigata Prefecture and the Fukushima No. 1 and No. 2 nuclear plants, both in Fukushima Prefecture.

A TEPCO official said that the company put off tackling the problems because the deadline for dealing with such matters "was not clearly stated."

TEPCO's safety regulations stipulate that blazes, glitches in air-conditioning and other problems at nuclear plants must be dealt with by the main office of the operator.

As such, the utility is obliged to find the root of the problem and take precautionary measures to ensure safety at the plant in question and any other facilities it operates.

NRA safety inspectors visited the Fukushima No. 2 nuclear plant from November through December last year.

They found that the division at company headquarters in charge of dealing with safety issues and sharing that information neglected reports of four problems that had occurred at the plant.

They included fires that broke out at waste disposal buildings at the No. 1 and No. 2 reactors and glitches in the air-conditioning system at the No. 2 reactor.

Officials also determined that there had been numerous instances of a failure to act over the past three years.

They cited 17 cases at the Kashiwazaki-Kariwa nuclear plant; five cases at the Fukushima No. 1 nuclear plant and seven problems at the headquarters itself.

The NRA said it will closely examine TEPCO's handling of these matters next month to determine the gravity of the violations of safety regulations.

Compensation must be paid

February 20, 2019

State, TEPCO must pay redress to evacuees from Fukushima

<http://www.asahi.com/ajw/articles/AJ201902200063.html>

THE ASAHI SHIMBUN

YOKOHAMA--The district court here Feb. 20 ordered the government and Tokyo Electric Power Co. to jointly pay 420 million yen (\$3.79 million) in damages to evacuees over the March 2011 Fukushima nuclear disaster.

It held the two parties responsible for the triple meltdown at the Fukushima No. 1 nuclear power plant triggered by the Great East Japan Earthquake and tsunami.

This brings to eight the number of rulings in similar lawsuits that found TEPCO responsible for the suffering of evacuees.

Of six similar lawsuits brought against the government, five found the state responsible.

Thirty or so group lawsuits were filed around Japan by evacuees seeking redress.

A group of 175 plaintiffs who moved to Kanagawa Prefecture after evacuating from Fukushima Prefecture because of the nuclear disaster were involved in the suit with the Yokohama District Court.

Presiding Judge Ken Nakadaira ordered the government and the utility to pay 420 million yen in compensation to 125 plaintiffs who fled to Kanagawa Prefecture after being ordered to evacuate from their communities. The remaining 50 plaintiffs fled out of fears for their safety, although no evacuation order was issued.

The plaintiffs had demanded 20 million yen each, in addition to compensation for damage to their homes and other property.

A focus of the court battle was whether the government and TEPCO could have foreseen the possibility of a temblor on the scale of the magnitude-9.0 Great East Japan Earthquake striking the plant, and the likelihood of a power blackout if the coastal complex was inundated by tsunami.

The court found that it was indeed possible as early as September 2009 to predict that towering tsunami could swamp the plant.

The court also said hydrogen explosions that rocked the plant could have been avoided if power systems inside the nuclear complex had been installed in an elevated area, which TEPCO neglected to do.

With regard to the government's responsibility, the court ordered the payout to victims for breaching their right to a peaceful life.

"It could have ordered the company to install power facilities that met certain technological levels, but it failed to do so," the court said.

Plaintiffs welcomed the Yokohama District Court ruling.

Hiromu Murata, 76, who led the plaintiff group, called on the government to "address the problem of evacuees responsibly."

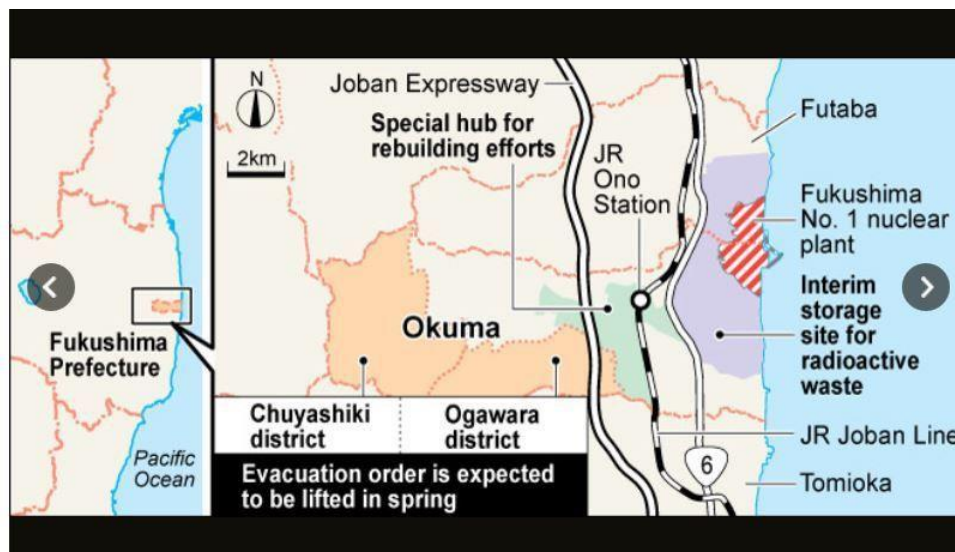
He accused the government of taking measures "based on the premise that the nuclear disaster is over," but he said, "there is no change in the reality that we must continue to live as evacuees."

Another plaintiff who evacuated from the Odaka district of Minami-Soma, part of the 20-kilometer no-entry zone from the plant, said her life was upended by the nuclear disaster.

"I had my job and community taken away," said the woman, who is in her 50s and now lives in Yokohama by herself. "I feel I have been left behind by society. I cannot have a sense of closure unless TEPCO is forced to be held accountable."

(This article was written by Naoto Iizuka and Hirohisa Yamashita.)

Lifting Okuma evacuation order in April?



February 20, 2019

Host town of crippled nuke plant to lift evacuation order

<http://www.asahi.com/ajw/articles/AJ201902200049.html>

THE ASAHI SHIMBUN

OKUMA, Fukushima Prefecture--An evacuation order will be lifted for two districts here as early as April, eight years after the triple meltdown at the Fukushima No. 1 nuclear power plant spewed massive amounts of radioactive substances into the air.

It would be the first time for Okuma, which co-hosts the plant, to see the evacuation order lifted, albeit partially.

The Okuma town government, which moved 100 kilometers to Aizuwakamatsu in the prefecture following the disaster, reported at a meeting of town assembly members on Feb. 19 that **conditions in Okuma, including radiation levels, have improved to meet the criteria for lifting the order.**

The town plans to discuss the schedule for lifting the order with the central government and hold a meeting in March with evacuees.

"I want to explain the town's stance in such a way that residents will fully understand," said Okuma Mayor Toshitsuna Watanabe.

The entire town, with a population of 11,500, was ordered to evacuate after the onset of the nuclear crisis following the Great East Japan Earthquake and tsunami in March 2011.

The lifting of the order is expected to cover the **Ogawara and Chuyashiki districts, both southwest of the plant.**

Together the districts account for about 40 percent of the town's acreage. The town's records showed that 374 residents, or about **4 percent of the current population, are registered in the districts, as of the end of January.**

The town government has been preparing for the partial lifting of the evacuation order since April last year.

As of Feb. 7, 46 people have returned to live there as **an advance group.**

In Ogawara, about 700 employees of Tokyo Electric Power Co., the operator of the plant, live in the company's dormitory built in 2016 as a special case and commute to the nuclear complex to engage in decommissioning work.

At the Feb. 19 meeting, a member of the town's committee that assesses the progress of decontamination said, "Radiation levels have declined sufficiently."

The town anticipates that about 1,000 residents will move back to the Ogawara district, where a new town hall is being built, along with about 2,000 people coming from out of town.

However, **the psychological barriers are high for Okuma evacuees, as the town now hosts an interim storage site for radioactive waste produced from decontamination operations in the prefecture.**

Preliminary results of a survey conducted last year to gauge the sentiment of residents showed that only 10 percent of respondents expressed a desire to return. About 60 percent said they had no plans to return.

The town government of Futaba, the neighboring town that co-hosts the nuclear plant, aims to have its evacuation order partially lifted around spring 2020.

(This article was written by Hideyuki Miura and Daiki Ishizuka.)

Throwing out records

March 4, 2019

Survey: Many of 42 entities tossed out records from 2011 quake

By MITSUMASA INOUE/ Staff Writer

Eight years after the 2011 Great East Japan Earthquake and tsunami, the majority of the 42 municipalities in the three most affected prefectures **have or may have disposed of official documents related to the disaster.**

The municipalities in Iwate, Miyagi and Fukushima prefectures reported throwing out the records because **there were no unified rules on their preservation**, according to an Asahi Shimbun survey. The survey spotlights the necessity of seeking measures to preserve official documents, which were made at the time of the disaster or during the reconstruction process, to the fullest extent possible. Hiroshi Okumura, professor of historical materials at Kobe University, said that such documents could show the circumstances at the time of disasters and how the central and local governments and residents responded, regardless of how long they had been kept.

“(Therefore) it is necessary to preserve them as long as possible as documents to prepare for future disasters,” he said.

The Public Records Management Law took effect in April 2011, a month after the twin disasters that hit the three prefectures of the Tohoku region and surrounding areas. Based on the law, the Cabinet Office required the organizations of the central government in 2012 to appropriately preserve their documents related to the disaster. In notifying them of the requirement, the office said that preservation of those documents is “a historically important policy to share the records as a state and a society.”

However, local governments were not subject to the order. The Asahi Shimbun conducted the survey of the 42 municipalities in January and February. The municipalities were preserving their respective disaster-related documents based on the law or their internal policies. The survey asked the municipalities if they had discarded some of those official documents as their preservation periods had expired. Six municipalities replied that they have discarded some of the documents, and 16 other municipalities responded that they may have discarded some of them. The documents that have already been discarded included notifications from the central government and **lists of names of volunteer workers**.

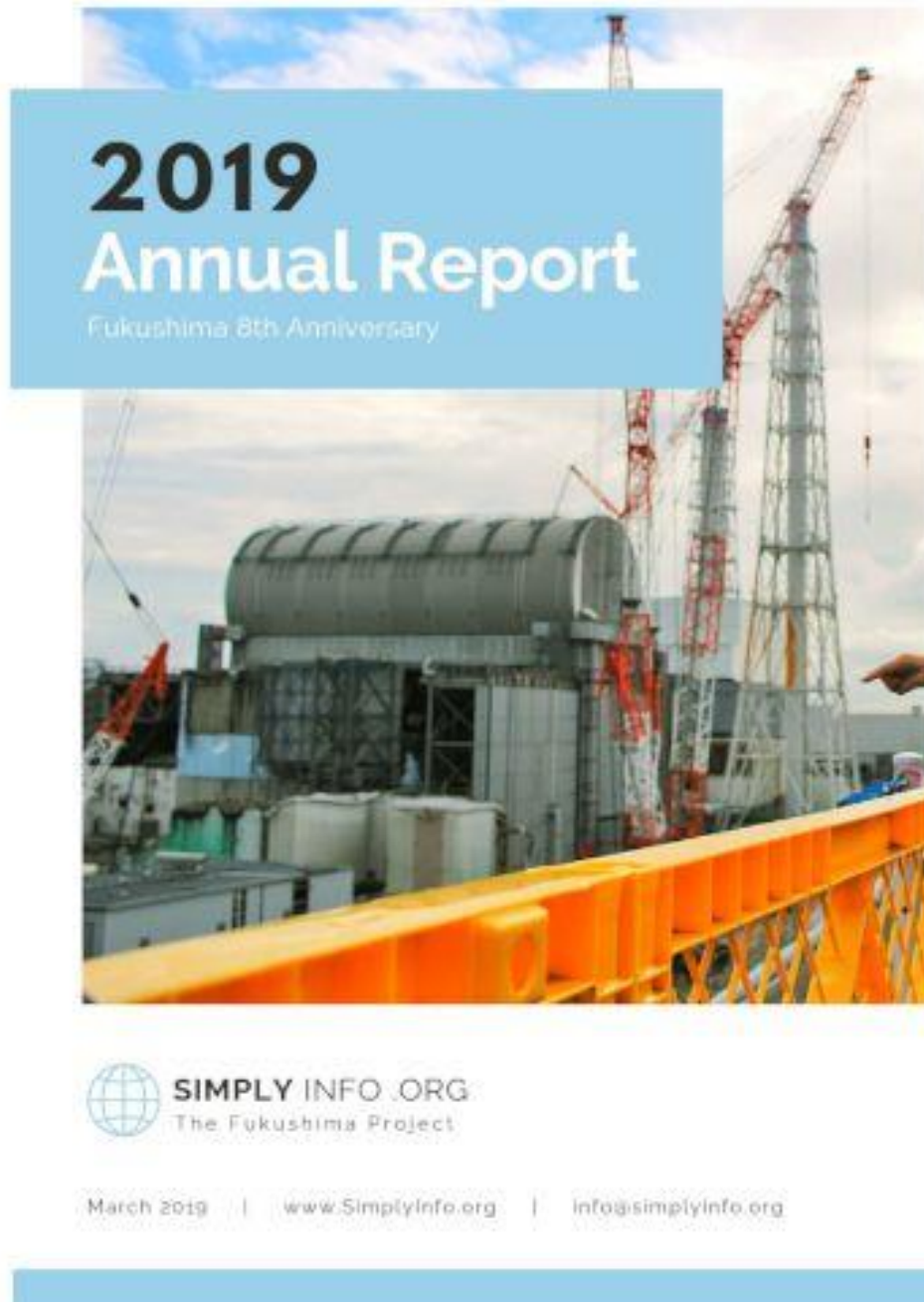
As for why they disposed of the documents, Tagajo city of Miyagi Prefecture said, “The preservation period had expired.” Iitate village in Fukushima Prefecture said, “We don’t have space to preserve all the documents.”

The survey also asked the 42 municipalities about whether they have documents they plan to discard after their preservation periods expire. Twelve municipalities replied that they have such documents and 17 answered that they have not yet decided how to deal with those records. Many of the 42 municipalities were leaving management of the official documents up to their respective divisions. Therefore, what is important for the preservation is whether each municipal government decided as a whole to preserve the documents and when it made the decision, if it decided to preserve them. For example, Kesenuma city in Miyagi Prefecture decided in 2018 that it would not discard the documents for the time being. That means that it could have chosen to dispose of them before 2018. Meanwhile, Kamaishi city in Iwate Prefecture, which replied that it has not discarded any documents of the kind, decided in 2012 to permanently preserve all its disaster-related records. **In addition to official documents, memos written by municipal government employees, records written on whiteboards and photographs are also important records of the disaster.**

However, 10 of the 42 municipalities replied that they were not preserving those type records. Okumura acknowledged the difficulty for each municipality to do so, given the constraints of space and manpower.

“(Because of that) it is necessary for the central and prefectural governments to establish systems to support municipalities, such as securing space for them or dispatching their employees for the job of preserving the documents,” he said.

Simply Info.org 2019 report on Fukushima



Contamination of persimmons: Faulty studies & disappearing data



March 7, 2019

Fukushima at 8: Accusations of scientific misconduct concern city in Japan

<http://www.beyondnuclear.org/radiation-health-whats-new/2019/3/7/fukushima-at-8-accusations-of-scientific-misconduct-concern.html>

Date City produces peaches and dried persimmons. Eight years after the Fukushima nuclear reactors exploded on Japan's Northern coast, spewing radioactive particles into the air, across the land, and into the Pacific Ocean, the country continues to struggle with decontamination and relocation efforts. Determining the health impacts resulting from the nuclear disaster has been particularly fraught. For Date City, about 60 km from the ruined Fukushima reactors, and still blanketed by radioactive contamination from the ongoing catastrophe, the struggle for protection of health continues amid accusations of scientific misconduct and betrayal.

After the nuclear catastrophe began, Date City residents received glass badges that measure radioactivity. About four and a half years of measurements collected from these glass badges were used by Ryugo Hayano, Professor emeritus from the University of Tokyo and Makoto Miyazaki from Fukushima Medical University (FMU) to initially publish two studies in the *Journal of Radiological Protection (JRP)*. Radiation policy makers in Japan often reference the second of these two studies, indicating they trust the data and conclusions it offers. However, earlier this year, Shin-ichi Kurokawa (Professor Emeritus of The High Energy Accelerator Research Organization) and Akemi Shima (resident of Date City) contended that this research and the studies using it, are compromised by **serious ethical violations and scientific misconduct**.

Date City officials requested the papers subsequent to their adoption of a 5 mSv annual radiation exposure limit, which represents a huge increase of radiation exposure to residents. Date City has also limited decontamination efforts in certain areas, and the former mayor Shoji Nishida, requested that the International Atomic Energy Agency proclaim 5 mSv per year safe, instead of the current 1mSv. More detailed information is coming to light as a new mayor of Date City has been elected.

Kurokawa first raised concerns about the second study in a peer-reviewed August 2018 letter sent to *JRP*. The *JRP*, a U.K. journal, has yet to publish Kurokawa's critique, so he published it on a Cornell University website in December 2018. Kurokawa also published a timeline and further critique of Hayano's response to the letter in *Harbor Business Online* in February 2019, original article in Japanese. This research has also been reported on Retraction Watch, a website that tracks published troubled papers, although there are more serious concerns than those RW highlights.

Hayano has admitted (English translation here) to a miscalculation that underestimated doses to Date City residents by three times. Hayano also admits to destruction of the data on which the studies were based, claiming this "deletion" was in accordance with research protocol of the study. But Kurokawa disputes that, pointing out that data destruction is a violation of Japan's ethical guidelines on handling human data – guidelines that instruct researchers to keep the data as long as possible. This destruction of data, and failure to publish a promised third study, appear to conceal evidence that found very high internal doses of radioactivity in some residents of Date City.

The Date City glass badge experiment

The research used glass badge data from approximately 59,000 Date City residents. These badges, paid for and distributed by Date City, supposedly measured the external radioactivity that each individual was exposed to beginning about August 2011, approximately 5 months after the nuclear catastrophe began, until the summer of 2015. The mayor's office of Date City provided both the glass badge data and data on internal exposures for individual residents.

According to research protocols agreed to with FMU, Miyazaki and Hayano planned to publish three studies based on these data. The first, comparing individual external doses to survey results of airborne radiation from the Government of Japan, was published in 2016. The second, a prediction of lifetime dose and an evaluation of the effect of decontamination on doses to individuals, was published in 2017. The third study, examining the relationship between external doses and internal doses, will not be published. Instead it has been replaced by a study on a different topic.

Where things went wrong

Bad glass badge data

Perhaps the experiment was doomed from the start as the Miyazaki-Hayano studies admit some residents of Date City may not have worn the glass badges on their bodies or actually lived at the address registered for the badge. Such improper badge use would immediately compromise any conclusions reached concerning individual doses, but the researchers used the data anyway.

Mishandling and destruction of data

In addition to questionable glass badge measurements, Kurokawa contends the Miyazaki-Hayano research suffers from mishandling and destruction of data that violates ethical guidelines:

- Residents (research subjects) of Date City were not informed of the content of the research prior to the research commencing, and were not given opportunity to refuse use of their data. Miyazaki, being a municipal advisor on radiation to Date City as well as a study author, should have known how to handle this properly, yet he did not.

- Miyazaki and Hayano failed to note that some residents had not consented to use of their data, a fact obvious in the data supplied to them by Date City. They further failed to obtain consent from those residents prior to use of their data.
- Hayano presented data before the research protocol was submitted to, and approved by, an FMU Ethics review committee.
- Residents were not told of the papers once they were published, nor were they told that the Mayor's office of Date City had requested the papers be published. This presented a conflict of interest since the Date City Mayor's office had an agenda (see slides 21 & 26) of encouraging residents to increase "resilience" while living in a contaminated environment. For residents, this means consuming contaminated food and restricting decontamination efforts per Date City's new 5 mSv annual exposure limit. A few months after Date Mayor Shoji Nishida announced this "resiliency" policy, Miyazaki was hired as radiation advisor to the city.
- Miyazaki and Hayano replaced the third study originally agreed to, with a study that said nothing about internal versus external doses, violating the research protocol.
- **At the conclusion of the research, all of the data were destroyed.** According to records obtained by an information request file by Shima, Kurokawa's co-author of the *Kagaku* article, Hayano created an integrated database at the request of Date City, but did not share this database with the city. Therefore, when the database was destroyed, Miyazaki and Hayano knew that Date City could not replicate it or the data it contained.
- Kurokawa points out that research conducted in Japan must follow the ethical guidelines based on the Declaration of Helsinki for proper protocols in handling medical and health research involving human subjects, such as valuing welfare of the research subjects over that of scientific results. FMU approved the Miyazaki-Hayano research papers under these protocols – protocols this research seriously violated by not allowing people to control use of their own data and by destroying the data after publication so that neither researchers nor the research subjects, can access it or replicate the studies.

Underestimation of dose

In addition to the mishandling of data, Kurokawa has discovered discrepancies in the values of cumulative doses in paper 2, which appear to underestimate actual doses. Hayano has, by his own admission, underestimated individual doses by three times. Professor Hayano says that he will issue a correction (*corrigendum*) for this dose underestimation, but has failed to completely answer the additional serious discrepancies, and the ethical violations of mishandling and destruction of data Kurokawa notes.

Why the "phantom" third study matters

The missing third study was supposed to investigate correlation between external and internal individual doses – a correlation Miyazaki and Hayano *had already hypothesized would not exist*. However, upon reviewing other data in Date City reports, the opposite was found: "[there was very] clear correlation between the external and internal doses...some cases with very high levels of internal exposure measurements." Kurokawa offers his own hypothesis as to why Miyazaki and Hayano never published a paper on this third research question:

The true reason for not publishing Paper 3 could be the discovery of a clear correlation between the external and internal doses **with some residents showing internal exposure measurements of several thousand Bq even since 2015**. Not publishing inconvenient results despite receiving the internal exposure dose data from Date City would have to be considered a violation of the Ethical Guidelines. (emphasis added)

This correlation also reveals that Date City's "resiliency" plan is not protecting its residents. Miyazaki and Hayano's unwillingness to address internal dose evidence in the Date City data also calls into question Hayano's other research on internal doses issues such as monitoring of food and whole body scans of children, the last publication of which appears to be in 2015.

Mistaken assumptions based on faulty studies

Japan's Radiation Council (JRC) on setting standards for protecting people from radiation often references this ethically and scientifically compromised research in discussions, particularly the second paper, which was the focus of Kurokawa's critical letter. Hayano's work is often mentioned by other scientists and press as indication that doses from Fukushima radiation are low, that decontamination efforts paid for by Date City funds, might not have been necessary, and that living in an environment contaminated by "low" levels of man-made radiation is acceptable.

Where was the peer-review?

For its part *JRP* has now determined at this time that a correction for the dose underestimation is all that is needed, while an investigation into the consent issue is conducted. *JRP* claims to adhere to the Declaration of Helsinki for proper protocols in handling medical and health research involving human subjects. However, data misuse and destruction should require retraction of the papers, not correction. Kurokawa contends that underestimating 70-year lifetime doses by three times is a severe enough miscalculation that a mere correction will not suffice, implying the conclusions of the papers are now in jeopardy. Hayano is claiming, falsely, that *JRP* wants a rewrite of the paper. Even if *JRP* did want a rewrite, it is unclear how Hayano intends to accomplish this since the Date City data on which the original papers were based have been destroyed. Kurokawa states:

There is no way to rewrite a paper when the research has already completed and all the data have been destroyed. Even if Date City were to re-supply the data to FMU, it would be considered new research and a new research proposal would have to be submitted to the Ethics Review Committee at FMU. A resulting paper **would no longer be a revised version, but an entirely different paper based on new research. A scientist should never conceal such information, let alone pretend as if what was requested by JRP was a rewritten paper when it was a corrigendum that was actually requested.** (emphasis in original English translation)

To date, neither Miyazaki nor Hayano have responded in the customary fashion, which would be to answer Kurokawa's original letter criticizing their published research point-by-point. Kurokawa has published an analysis of Miyazaki-Hayano paper 1 in the March issue of *Kagaku* in Japanese, and will be publishing detailed analysis of paper 2 in April 2019.

Thanks to Yuri Hiranuma for input and review of this article and for the translations used to write it. See Yuri's blog.

Gundersen on the 2020 Olympics



March 8, 2019

Atomic Balm Part 2: The Run For Your Life Tokyo Olympics

<https://www.fairewinds.org/demystify/atomic-balm-part-2-the-run-for-your-life-tokyo-olympics>

Written by Arnie Gundersen

Edited by Maggie Gundersen

Thank you to Fairewinds' Friends, who have written and called us to share their appreciation for Fairewinds' post *Atomic Balm Part 1*, and for taking the time to read and understand our analysis of the real reasons the Summer Olympics were placed in Tokyo in 2020.

To begin Part 2, let's talk about the scientific studies that Dr. Marco Kaltofen and I began together back in 2012. Before the ongoing catastrophe created by the Fukushima meltdowns, the *maximum allowable* radiation exposure emanating from commercial atomic power reactors was 100 millirem per year (1 milli Sievert per year) to civilians worldwide. Because radiation workers receive compensation for the increased body burden they take on by working in a high radiation risk environment, workers were allowed a maximum of 5,000 millirem per year of radiation (50 milli Sieverts or 5 Rem – depending upon which term one is applying). Although that is the legal upper limit, most workers in atomic power industry actually receive approximately 2,000 millirem per year (20 milli Sieverts or 2 Rem). According to DOE 2016 Occupational Radiation Exposure

Over the past 5-year period, all monitored individuals received measurable total effective dose (TED) below the 2 rem (20 mSv) TED ACL, which is well below the DOE regulatory limit of 5 rem (50 mSv) TED annually.

Since the Fukushima meltdowns, the government of Japan changed the rules by increasing the allowable amount of radiation civilians are subjected to at 20-times higher than was previously allowed, which is almost the same as the highest dose exposure nuke workers may receive in an entire year!

A significant portion of the Olympic games, including men's baseball and women's softball and the Olympic torch run, as well as the soccer training facility, will occur on land that the government of Japan has declared to be part of a "nuclear emergency". This means that athletes and civilians will legally be exposed to *allowable* radiation levels that are 20 times higher than levels that exist at other athletic facilities on any other continent. Therefore, according to the National Academy of Science's Linear No Threshold (LNT) radiation risk assessment, the athlete's risk of radiation related maladies has also increased 20 times higher than if they stayed home.

The people living in and around the Fukushima Daiichi disaster were informed by Japan's government that they must return to their contaminated homes and villages if the radiation levels there were 2 Rem, *even though they are being subjected to daily doses of radiation that is 20 times higher than any people living near any nuclear plants in Japan were ever subjected to.*

Rather than completing an effective cleanup, Japan's government is forcing its evacuees to return to their allegedly clean but still highly contaminated homes if they wanted to continue to receive their financial refugee stipend. There are three fundamental problems that make the exposure to Japanese civilians much worse than the new dose limit.

The first problem is with the government of Japan's clearance criteria that only areas in and around homes have been allegedly decontaminated. I measured radiation along highways and then 50-feet into

the surrounding woods, only to find that the woods remained highly contaminated, so that when it rains or snows, or the wind blows the dust or pollen from the woods, that radiation migrates back to people's supposedly clean and radiation-free homes. I went to the top of 4-story high rooftops in Minamisoma that had been completely cleaned and repainted following the meltdowns. These rooftops were recontaminated by dust on the wind, blowing in radiation from the surrounding mountains. Peoples' homes and communities that were claimed to be clean are indeed being recontaminated every day. The second problem is that the government of Japan is measuring only one type of radiation prior to forcing the refugees to return. Only the direct radiation from cesium is being measured with handheld Geiger Counters. Such measurements are the measurement of external gamma rays that travel through the human body uniformly, much like X-rays. Dr. Marco Kaltofen and I have long noted that ingestion of small radioactive particles, called hot particles or fine radioactive dust (or nanoparticles), migrate into peoples' lungs and GI systems causing internal organs to receive heavy radiation doses for years on end. TEPCO and the government of Japan are ignoring the presence of these hot particles.

The third and final problem is that some hot particles are extraordinarily radioactive, much more so than the average hot particles. In a peer-reviewed paper that Dr. Kaltofen and I wrote, we detail our scientific research which proves that more than 5% of these particles are up to 10,000 times more radioactive than the average of all 300-particles we studied. Of course, this means that peoples' internal organs are constantly bombarded with extraordinarily high levels of radiation, much higher than the civilian evacuees are subjected to.

These three additional selfie-videos that I took while in Fukushima during September 2017 show what is really happening near Fukushima. We cannot forget about the magnitude of these exposures to all people in order to create an image of normalcy by Japan's hosting of the Tokyo Olympics.

The migrating radioactive dust from Fukushima has had and will continue to have a devastating effect on thousands of people who lived near the reactors and are now being forced to return as well as hundreds of thousands who reside much further away. Highly radioactive samples were found as far away and in such populous places as Tokyo. In its effort to try and restore everything to the way it was before the triple meltdowns, the government of Japan has failed to realize that Japan and in fact the world, is a much different place than it was before the Fukushima Daiichi disaster. Japan continues to force refugees to return to contaminated villages and is marketing what can only be irradiated products from Fukushima. Cleaning up after a nuclear meltdown is no easy task, in fact a total clean-up is technically impossible, by slapping Band-Aids and quick fixes onto the problem instead of acknowledging the scope, severity, and root causes of the issues, the politicians and government officials of Japan and TEPCO are endangering the lives of thousands of Japan's citizens in order to protect their political standing, personal financial status, and the wallets of the nuclear industry.

According to the Asia Pacific Journal (AJP) last week, in a brilliant essay written by University of Chicago professor Dr. Norma Field, a Robert S. Ingersoll Distinguished Service Professor in Japanese Studies in East Asian Languages and Civilizations:

We might pause over predictions that the 2020 Olympics-Paralympics may end up costing 3 trillion yen (approximately 26.4 billion USD), many times the original budget for what was promised to be the most "compact Olympics" ever. These games are often touted as the "recovery Olympics" (*fukkō gorin*).

It is not hard to conjure ways that these monies might have been used to benefit the entire region afflicted by the triple disaster and especially, the victims of the enduring nuclear disaster. A pittance of the Olympics budget would have sustained modest housing support for evacuees, compulsory or "voluntary." Instead, the highly restricted, arbitrarily drawn evacuation zones have been recklessly opened for return of evacuated citizens despite worrisome conditions prevailing over wide swaths of the region.

The Olympic soccer center that served TEPCO as a base for radioactively contaminated disaster workers (where they slept, donned protective gear, and were screened) has been contaminated by radioactivity yet is scheduled to be the training site for the national soccer team.

In Dr. Field's essay for APJ, which was an introduction to a longer essay by the recently retired Kyoto University Reactor Research Institute professor: Dr. Koide Hiroaki, she wrote:

...As medical journalist Aihara Hiroko observes with not a little irony, **"Surely the Tokyo Olympics will be a superb occasion for displaying 'recovery from disaster,'" but also for revealing to the international community the "real consequences of the human-made disaster resulting from the national nuclear energy policy: the imposition of long-term evacuation and sacrifice on the part of area residents."** [Emphasis Added]

Dr. Field's introduction and Dr. Koide Hiroaki's extensive article in *APJ* are crushing to read, yet they do not tell the whole story. I feel it is important to expand upon the ongoing radiation exposures that the 160,000 Fukushima refugees are still experiencing, eight years after the meltdowns. This science, that governments are hiding from people around the world, is not difficult to understand, especially if we also focus on the desire of world governments to keep alive the ever-intertwined nuclear power and nuclear weapons opportunities they have invested in so heavily -- financially, politically, and emotionally. During my four trips to Japan, and from all the people who have written to Fairewinds from Japan since we first published our book there, I have met, spoken with, or communicated with numerous refugees from Fukushima and truly believe that Fairewinds understands their traumatic losses.

While people world-wide might cheer the Tokyo Olympians, the human perspective should focus on the real victims, those who are being shoved out-of-sight.

The bottom line is that to reduce cleanup costs while spending enormous funds on the Olympics, the government of Japan treats its 160,000 Fukushima evacuees as if they were radiation Guinea Pigs, forcing them to return to recontaminated areas to try and convince the world everything is ok, meanwhile making it difficult for serious scientists to accurately assess the effects of radiation on these evacuees. The billions of dollars being spent on the Olympics would be much better used to help those displaced by the Fukushima Daiichi disaster. Help these families find permanent homes and employment and new supportive communities far away from the contaminated areas that they are now forcibly being returned to.

Cost could be up to 81 million yen (not 22)

March 10, 2019

Think tank puts cost to address nuke disaster up to 81 trillion yen

<http://www.asahi.com/ajw/articles/AJ201903100044.html>

By ATSUSHI KOMORI/ Staff Writer

In a startling disparity, a private think tank puts the cost of addressing the 2011 Fukushima nuclear disaster between 35 trillion yen and 81 trillion yen (\$315 billion and \$728 billion), compared with the government estimate of 22 trillion yen.

The calculation, by the Tokyo-based Japan Center for Economic Research, showed that the total could soar to at least 60 percent more and up to 3.7 times more than the 2016 estimate by the Ministry of Economy, Trade and Industry.

In releasing the latest estimates on March 7, the center said it is time for serious debate over the role nuclear energy should play in the nation's mid- and long-term energy policy.

Of the highest price tag of 81 trillion yen, 51 trillion yen would go toward decommissioning the crippled Fukushima No. 1 nuclear power plant and treating and disposing of radioactive water. The ministry put the cost for these tasks at 8 trillion yen.

The center calculated the compensation to victims at 10 trillion yen, while the comparable estimate by the ministry was 8 trillion yen.

Although the center's estimate for the decontamination operation was 20 trillion yen, the ministry's projection was 6 trillion yen.

The biggest disparity in the estimates between the think tank and the ministry is that the former put the treatment and disposal of contaminated water at 40 trillion yen and included the cost for disposing of polluted soil produced during cleanup operations in the overall costs.

If contaminated water is released in the sea after it is diluted with water, the overall costs could be 41 trillion yen, including 11 trillion yen estimated for decommissioning and disposal for tainted water.

The least expensive way of coping with the accident--35 trillion yen--would be to encase the plant in a concrete sarcophagus, rather than undertaking the formidable challenge of retrieving melted nuclear fuel from the reactors, and releasing contaminated water into the sea. In this case, it would cost 4.3 trillion yen to close down the plant and dispose of the radioactive water.

But this scenario drew fire from residents in the affected municipalities as they view covering nuclear fuel debris with a massive structure would be tantamount to asking them to give up hope of eventually returning to their hometowns.

The center's latest projections followed its estimates two years ago, in which the number varied from 50 trillion yen to 70 trillion yen.

It updated its projections based on the findings about treatment and disposal of radioactive water and progress in cleanup operations over the past years.

"Recovery Olympics", really?

March 10, 2019

'Recovery Olympics' moniker for 2020 Games rubs 3/11 evacuees the wrong way

<https://www.japantimes.co.jp/news/2019/03/10/national/recovery-olympics-moniker-2020-games-rubs-3-11-evacuees-wrong-way/#.XIUMrLjjLyQ>

by Magdalena Osumi
Staff Writer

This is the fourth in a series examining how the northeast and the nation are progressing with efforts to deal with the March 2011 earthquake, tsunami and nuclear crisis.

ISHINOMAKI, MIYAGI PREF. - The town of Rifu on the outskirts of Sendai is set to host 10 soccer matches during the 2020 Olympics and Paralympics in line with the organizers' plan to tout the games as the "Recovery Olympics."

For Rifu, expectations are high the 2020 Games will draw international attention and lure more tourists, as Tohoku's tourism sector struggles to recover from the Great East Japan Earthquake and ensuing tsunami on March 11, 2011. As part of the plan, an arena in Miyagi Prefecture is set to get a face-lift for the games.

"It's an honor for us to host such a large-scale event," said Fumitsugu Komatsu, who manages the facilities selected to host soccer matches in 2020.

The central government hopes the quadrennial sports event will serve as a platform to show that the nation has recovered from the disasters.

But recovery wasn't one of the original themes for the Tokyo Games. The concept was added when it became apparent Tokyo wouldn't be able to secure all the venues needed in the capital or its vicinity.

When organizers thus turned to the disaster-hit prefectures of Miyagi and Fukushima, which will host the softball and baseball games, the recovery spin was born, with officials saying the event would contribute to reconstruction.

Moreover, the reconstruction plan for the Tohoku region is expected to end when fiscal 2020 closes in March 2021, putting an end to various central government subsidies that helped both victims and municipalities.

"The Tokyo 2020 Games have become a goal for us to show the region has recovered," said Yasuki Sato, a Miyagi Prefecture official tasked with coordinating the preparations.

But residents in the area view the preparations as something happening in the background. In fact, some believe they are actually hindering the region's recovery.

Setsuo Takahashi, a resident of Ishinomaki, Miyagi Prefecture, whose house was swept away by tsunami eight years ago, is among the skeptics.

"Cheering the victims through sports is a good idea," he said. "But the Olympics have nothing to do with the people who live here. It's a different world, unreachable for us."

What most concerns Takahashi, who is now living in a new house he built in a residential area for the evacuees, is that preparations are taking priority over reconstruction, slowing the process.

Masahiko Fujimoto, a professor at Tohoku University's Graduate School of Economics and Management, said the affected areas may be losing workers to businesses in Tokyo, including for construction projects related to the games.

"The Olympics are, in part, negatively affecting the local economy. The event won't have any impact on the coastal towns," he said.

Indeed, the coast of Ishinomaki, dotted with trucks and cranes, remains largely under construction to restore damaged areas.

"Eight years on, this is still where we are," Akinari Abe, a member of Tohoku University's Volunteer Support Center, said last month as he looked out over the city from Hiyoriyama Park.

"We don't want anybody to tell lies that Tohoku has recovered," said Abe, 30. "People need to realize that the reality isn't so rosy." Many people here worry that after the Olympics, the Tohoku region, with all its struggles, will be forgotten."

The calamity killed at least 15,897, injured 6,157 and left over 2,500 unaccounted for, according to police figures. In addition, of the 470,000 forced to evacuate in the immediate aftermath, 51,778 remained unable to return to their homes as of Feb. 27, according to Reconstruction Agency data.

Nearly all of the 30,000 homes planned for relocation are ready to go in the hardest-hit prefectures of Miyagi, Iwate and Fukushima, plus five neighboring prefectures, including Aomori, Ibaraki and Chiba. With the infrastructure nearly finished, the focus has shifted to the mental and physical well being of the victims, especially the elderly, many of whom are having difficulty adjusting to new environments after their community bonds were severed.

Former fisherman Koetsu Kondo, 76, moved into a residential complex in Ishinomaki near the Oppa River in October 2017.

"This is my second home now," Kondo said as he covered himself with a quilt from his *kotatsu* (heated table) at his home in late February. His wife, Yoko, opted not to discuss her experience with the calamity. Before March 2011, the family had lived in a tiny hamlet on the coast. Although their home survived the tsunami, which in some places exceeded 30 meters, the liquefaction damage made returning to the area too risky.

Kondo said he has learned to accept his fate and that he's trying to pick up the pieces of his life. He says he's lucky he has someone to lean on as most of the other evacuees have no one to turn to.

Takahashi, the Ishinomaki man who lost his house and now lives across the street from Kondo, is helping him cope with the grief of losing relatives. The grief runs so deep that Kondo said he chose to rent an apartment near Takahashi so he wouldn't have to cross paths with his cousin, who lost his eldest son and wife in the tsunami.

"I can't look him in the eyes — it's too painful," he said. "They say time's a healer but that's a lie. Wounds only deepen with time. Before I go to sleep I still see their faces."

Kondo knows that for elderly men coping with traumatic events, starting anew in unfamiliar surroundings can be too much to bear. Yet he feels he has no choice.

So far, Ishinomaki has built 65 public housing complexes for disaster victims, and 4,456 new apartments are expected to be finished by the end of the month.

"But the construction of public housing is just a step forward toward recovery. The recovery process requires a support network to ensure a sense of security," said Hiroaki Maruya, a professor at Tohoku University's International Research Institute of Disaster Science who specializes in social systems for disaster mitigation. "The real recovery process starts after the survivors settle down."

The municipalities in the region are well aware of the challenge.

"We're concerned that such turmoil in their lives will exacerbate stress-related health problems; we worry this may lead to the rise in solitary deaths and suicides," said Hiroshi Oka, manager of Ishinomaki's recovery planning section, adding that stress-related problems are prevalent in seniors.

The Ishinomaki Municipal Government has launched a campaign to prevent suicides through medical consultations, including relaxation classes and other forms of support. The city also periodically conducts checkups on evacuees in the designated recovery districts.

According to Oka, data shows that the health of an evacuee begins to deteriorate after spending a year in a new neighborhood. Oka said some 80 percent of the evacuees in the recovery districts live alone or with only one family member.

Financial problems add to their struggles by preventing them from moving out of temporary housing. Ishinomaki's plan calls for having everyone in temporary housing moved to so-called recovery housing — apartment complexes instead of makeshift shelters — by the end of March. But as of the end of February, 807 Miyagi residents, including 203 in Ishinomaki, had yet to do so, their governments say. Subsidized rent for the new facilities will be terminated at the end of March 2021.

The authorities say they are now seeking ways to assist the evacuees from that point on.

"The 10-year period we had thought would suffice doesn't seem enough" to help communities recover, said Tomoharu Terashima, who manages one of the recovery task forces from Miyagi Prefecture.

"Reconstruction has taken too much time, so we're asking ourselves if after 10 years we can pull the plug," he said.

The Reconstruction Agency, which was set up to coordinate reconstruction efforts after 3/11, will also soon be dissolved. The Land, Infrastructure, Transport and Tourism Ministry and the Health, Labor and Welfare Ministry are expected to absorb its projects.

Experts warn of more challenges ahead.

Maruya, the Tohoku International Research professor, said the biggest problem is that many people fled areas that were already struggling with shrinking and rapidly graying populations. Most have no plans to return.

"Those who have left and settled down, found new jobs and sent their children to new schools won't come back just like that" despite the new housing facilities, elevated ground and restored infrastructure, he said. "Because people are not coming back, it may all be in vain."

The entire community, in fact, will likely disappear, Maruya said.

"For a region already struggling with rapid graying and depopulation before March 2011, it won't be possible to bring back the population or restore industrial prosperity."

Michio Ubaura, a Tohoku University professor with expertise in regional and urban reconstruction, says the disaster-hit areas are home to an aging population and a growing number of vacant homes — the same challenges other towns in Japan face.

The quake and tsunami, however, accelerated these demographic woes, forcing small towns in the region to deal with them decades earlier.

"Projections from before the disaster are becoming reality 10 or 20 years earlier than predicted," he said.

"What we'll see in a decade is what we had expected to see in 30 years."

When night falls in Ishinomaki, lights can be seen dotting the area around some of the aging temporary housing units where those who can't afford to leave still live.

In contrast, a huge cauldron that was kept alight throughout the 1964 Tokyo Olympics has been put on display nearby as a symbol of recovery ahead of the 2020 Games.

"The previous Olympics gave us hope for a better life," said Takahashi. "But the 2020 Games we can't afford to take part in will only benefit Tokyo."

This is a series examining how the northeast and the nation are progressing with efforts to deal with the March 2011 earthquake, tsunami and nuclear crisis.

Abe not always convincing

March 11, 2019

Eight years on, Abe says 3/11 recovery nearing 'final stages,' though half of public unconvinced

<https://www.japantimes.co.jp/news/2019/03/11/national/eight-years-abe-says-3-11-reconstruction-nearing-final-stages-though-half-public-unconvinced/#.XIZNu7jjLyQ>

by Tomohiro Osaki

Staff Writer

Prime Minister Shinzo Abe said Monday that Japan is approaching the “final stages” of its effort to rebuild areas devastated by a magnitude 9 earthquake and tsunami in 2011, as the nation marked the eighth anniversary of the biggest disaster in its postwar history — which left more than 20,000 dead or unaccounted for.

A moment of silence was observed nationwide at 2:46 p.m., the fateful minute when the Great East Japan Earthquake jolted many parts of Japan and subsequently triggered a killer tsunami that engulfed large swaths of the Tohoku region, including the three hardest-hit prefectures of Miyagi, Iwate and Fukushima. Eight years on, Abe was confident like never before in the steadfast manner in which reconstruction is taking place. Whereas he previously said reconstruction was proceeding “step by step,” this year he ditched the language of a gradual recovery and instead adopted a more definite tone.

That decision was notable given that a recent opinion poll showed nearly half of respondents nationwide saw little or no progress in the reconstruction.

Speaking at a state-organized memorial ceremony in Tokyo, Abe said efforts to rebuild the affected regions are “making visible progress,” before declaring: “In areas that were affected by the earthquake and tsunami, the reconstruction is advancing toward its final stages.”

The death toll from the magnitude 9 quake and ensuing tsunami — plus numerous aftershocks in the months following — hit 15,897 as of Friday, including 9,542 in Miyagi, 4,674 in Iwate and 1,614 in Fukushima, according to National Police Agency statistics.

That figure would be higher if combined with deaths triggered by stress and illness stemming from the disaster, which the Reconstruction Agency put at 3,701 as of December.

Separately, the latest NPA statistics also show that 2,533 people are still unaccounted for, which is also likely to boost the final death toll.

Despite signs of recovery, about 52,000 people remained displaced nationwide as of February, including those consigned to prefabricated temporary housing, hospitals and dwellings of relatives and friends, according to statistics compiled by the Reconstruction Agency. Residents in Fukushima, where the nuclear meltdowns at the Fukushima No. 1 power plant took place — the world’s worst nuclear crisis since the 1986 Chernobyl accident in Ukraine — are one of the most affected, with 9,322 still unable to return home.

At the ceremony, Abe acknowledged the plight of those forced to endure “uncomfortable” lives for an extended period of time.

But at the same time, he touted moves toward “full-scale reconstruction” — a phrase absent from last year’s speech — in Fukushima, citing the lifting of evacuation orders in almost all areas except for neighborhoods designated as “difficult to return home” due to exposure to high-level radiation from the plant.

Morihisa Kanoya, a disaster survivor who spoke at the ceremony as a representative of Fukushima Prefecture, said “many challenges” need to be overcome to fully reconstruct his hometown, Namie, which is located close to the plant.

Those include “repairing the damage caused by the earthquakes and the tsunami, as well as solving issues surrounding residents who were evacuated from their homes and the problem of radiation,” he said.

Masaaki Konno, a survivor from Miyagi, said memories of the grotesque aftermath of the disaster — including the “smell of countless rotting fish that had been cast ashore” — remain etched in his mind.

Konno, who lost his mother to the tsunami, said there remains a “gaping hole” in his soul because of “the feeling of powerlessness, and the sadness, agony and despair of not being able to find her.”

Also present at the nationally televised memorial service in Tokyo was Prince Akishino, who, like Abe, hailed “steady” and “extensive” advances in the process of recovery from tsunami and nuclear disasters. The prince elaborated on the heartache he said he feels at the thought of many of those still unable to return home due to the high concentration of radiation in Fukushima, the resulting depopulation of children and “the reputational damage caused by misinformation that has stubbornly lingered in such sectors such as agriculture, forestry and fisheries.”

Official figures point to the dismal recovery of fishery businesses in Fukushima. When contacted by The Japan Times, the prefecture put a preliminary estimate of the fish catch amount in 2018 at 4,010 tons, which, according to the Ministry of Economy, Trade and Industry, is a sixth of the pre-disaster level of about 25,000 tons in 2010.

According to a Jiji Press poll conducted in February on 2,000 people aged 18 or over nationwide, 2.2 percent said they see much progress in the reconstruction of disaster-hit areas, and 42.8 percent believe progress has been made to a certain extent.

On the other hand, 3.8 percent saw no progress at all and 43.8 percent claimed that they do not see much progress.

The survey showed that 74.8 percent see little or no progress in the reconstruction of areas damaged by the nuclear meltdown in Fukushima.

“It is important that we all continue to unite our hearts to be with the afflicted for many years to come, to ensure that none of those who are in difficult situations will be left behind, and that each and every one of them will be able to regain peace in their daily lives as soon as possible,” Prince Akishino said.

Episode 9 podcast (Japan Times)



March 11, 20

Episode 9: Eight years on from Fukushima

<https://www.japantimes.co.jp/podcast/episode-9-eight-years-fukushima/#.XIZOF7jjLyQ>

| KYODO

On the eighth anniversary of the Great East Japan Earthquake, staff writer Ryusei Takahashi shares his experience of a recent visit to the Fukushima Daiichi Nuclear Power Plant and Magda Osumi discusses the Tohoku region's recovery. Hosted by Oscar Boyd.

<https://audioboom.com/posts/7198038-eight-years-on-from-fukushima>

Guilty? Verdict expected mid-September

March 13, 2019

Trial winds up for ex-TEPCO execs; verdict set for Sept. 19

<http://www.asahi.com/ajw/articles/AJ201903130041.html>

By SHUNSUKE ABE/ Staff Writer

Final arguments were heard March 12 in a criminal case involving three former Tokyo Electric Power Co. executives and their role in the 2011 disaster at the Fukushima No. 1 nuclear power plant.

The defendants--Tsunehisa Katsumata, 78, a former chairman; Sakae Muto, 68, a former vice president; and Ichiro Takekuro, 72, another former vice president--maintained their innocence, saying they had no

way of knowing a massive tsunami triggered by the March 11, 2011, Great East Japan Earthquake would lead to the triple meltdown at the Fukushima No. 1 nuclear power plant.

The three are charged with professional negligence resulting in death and injury.

The case was brought to the Tokyo District Court after an inquest of prosecution committee made up of lay citizens decided the three should be put on trial.

The lawyers serving as prosecutors are seeking five-year prison terms for each of the defendants.

A verdict will be read on Sept. 19.

The major point of contention during the trial was an assessment by a TEPCO subsidiary in 2008 that a tsunami of 15.7 meters was the maximum height that could strike the Fukushima complex.

Defense lawyers asserted that the central government's long-term earthquake forecast, upon which the subsidiary's calculation was based, was unreliable.

After being briefed on the calculation, Muto arranged for the forecast to be assessed by the Japan Society of Civil Engineers.

Defense lawyers stressed that decision was a rational one and in no way could be construed as a delay in taking steps to counter the threat of destructive tsunami.

They also argued that prior to the Great East Japan Earthquake no forecasts existed of a possible magnitude-9.0 earthquake striking offshore.

For those reasons, the lawyers said their clients were innocent. They contended that there was no possible way the outcome could have been avoided, given the lack of a forecast of a disaster on such a scale.

Prosecutors argued that if operations at the Fukushima plant had been stopped five days prior to the earthquake and tsunami disaster, the nuclear accident could have been prevented.

In response, **defense lawyers said that stopping operations would "have had a major effect on the lives of the people and on the industrial sector,"** adding that electricity fees would have risen if thermal power plants were used instead. They also said that stopping operations would have gone against government calls to reduce carbon dioxide emissions.

Defense lawyers said any decision to stop nuclear plant operations would have required a rationale that surpassed such considerations.

To gain guilty verdicts against the three former TEPCO executives, **the lawyers serving as prosecutors had to show the defendants could have foreseen the danger of massive tsunami striking, and were negligent about taking necessary measures to guard against such an eventual outcome.**

Is THIS justice?

March 5, 2019

San Diego judge dismisses U.S. sailors' Fukushima radiation lawsuits, rules Japan has jurisdiction

Kristina DavisContact Reporter

A San Diego federal judge has dismissed two class-action lawsuits filed on behalf of hundreds of U.S. sailors who claimed they were exposed to dangerous levels of radiation during a humanitarian mission in Japan following 2011's devastating earthquake and tsunami.

In the end, the case came down to a jurisdiction issue. U.S. District Judge Janis Sammartino ruled in orders Monday that Japanese law applies to these claims and leaves open the possibility for the sailors to pursue recourse there.

The sailors were serving on the then-San Diego-based carrier Ronald Reagan off Korea when the earthquake struck on March 11, 2011. The quake set off a tsunami that flooded Japan's Fukushima-Daiichi Nuclear Power Plant, causing the plant's radioactive core to melt down and release radiation.

The Reagan and other crew in the vessel's strike force responded under a relief effort known as Operation Tomodachi — a Japanese word meaning "friends" — staying off the coast for more than three weeks aiding Japanese survivors. The Navy detected low levels of contamination in the air and on 17 crewmembers two days after the disaster and repositioned the ship.

Attorneys for the sailors said the radiation caused several ailments, including thyroid and gallbladder cancer, rectal bleeding, headaches and hair loss. Some have died.

The lawsuits blamed "negligently designed and maintained" boiling water reactors at the plant and also accused the power utility of denying and underplaying the disaster. The sailors sued the Tokyo Electric Power Company, known as TEPCO, as well as U.S. company General Electric, which designed the reactors in California.

The suits sought at least \$1 billion each and include more than 400 sailors.

The case has had a long history in both district and appellate court. One lawsuit was filed in 2012 and has had many reiterations. A second, separate class-action was also filed in 2017, then filed anew in 2018 adding 55 new plaintiffs. Jurisdiction has always been a problematic issue in the litigation.

Sammartino found on Monday that Japanese law applies. That means sailors can petition for relief under Japan's Compensation Act for all action tied to the operator — TEPCO.

Attorneys for the sailors have argued that their clients won't get a fair day in court under Japan's system. But the judge found "no convincing support" for that position.

"And while Plaintiffs' contention that litigating in the Japanese forum will be exponentially more difficult than litigating in California may be true, Plaintiffs have shown no law or facts which indicate that the Japanese forum is closed to any of the named, or unnamed, Plaintiffs," Sammartino said.

The Japanese government advocated for solving the litigation in its homeland, not the U.S. Japan has paid more than \$76 billion to resolve more than 17,000 claims and approximately 160 court proceedings through TEPCO's "Nuclear Damage Claim Dispute Resolution Center," the judge noted.

The judge also dismissed General Electric from liability, finding that if Japanese law applies, then the business is considered a manufacturer, not an operator, and is therefore shielded.

Sammartino sided with the 9th U.S. Circuit Court of Appeal's characterization of the legal battle as a "'close case' with competing interests pointing in both directions."

She later concluded: "Now, however, after considering the Japanese and United States governments' views, the Court finds that the foreign and public policy interests weigh toward dismissal."

Paul Garner, a Carlsbad attorney on the sailors' legal team, said Wednesday that he anticipates an appeal. He called the notion that any of the sailors would be paid for personal injury or wrongful death in Japan "a fiction," noting that Japanese citizens are only being compensated for damages such as loss of livelihood or losses due to relocation.

To seek remedy in Japan, the sailors would have to be able to afford the trip, be healthy enough to travel, hire a Japanese lawyer, have their medical records translated, and appear before a tribunal.

"I don't foresee any of them having the ability to go to Japan," Garner said.

A TEPCO spokesperson said in a statement late Tuesday: "We understand that the court agreed with our view. We will look into the court's ruling and continue to respond to this case appropriately."

Save us!

<image: >

Fair judgment for the "Trial to Protect Children from Irradiation" in Fukushima

Nos Voisins Lointains 3.11 a **lancé cette pétition adressée à** The Civil Department of Fukushima District Court

https://www.change.org/p/the-civil-department-of-fukushima-district-court-fair-judgment-for-the-trial-to-protect-children-from-irradiation-in-fukushima-89e15e91-5be2-43dd-9b4b-b04b97e70d4d?recruiter=38403170&utm_source=share_petition&utm_medium=copylink&utm_campaign=share_petition&fbclid=IwAR2PvT_0aut7wbzkKfOZ8JcrAt7IXk5SL-MeG4F6M06l3MRj0P600G5jLVw

Please sign!

(Le texte en français se trouve après le texte en anglais).

There are two parts in the "Trial to Protect Children from Irradiation": the "Children's Rights Trial " and the "Parent-Child Trial". In the case of the first trial the defendants are the local governments. The plaintiffs demand the recognition of the right of primary and secondary school students of Fukushima Prefecture to enjoy education in a healthy environment. The second trial requires the recognition of the responsibility of the central and prefectural governments for not having taken the necessary protective measures and thus for unnecessarily exposing the children to radiation. The civil party, consisting of children and their parents who were residents in the Fukushima Prefecture when the Fukushima Daiichi nuclear accident occurred, seeks compensation from the Fukushima prefectural and Japanese central governments.

The Japanese government totally underestimates the health risks associated with low-dose radiation exposure, and with internal radiation from the soil, water or air, or from contaminated substances. As a result, many children are exposed to the radiation they could have avoided. According to the thyroid examinations performed on children and adolescents under the age of 18 at the time of the nuclear accident, as of December 25, 2017, the number of cancers diagnosed was 193 cases. However, the government continues to consider that there is no link between this fact and irradiation, and has not undertaken research to find out the cause of the greatly increased frequency*. We must protect children from radiation. Since the government refuses to take action, it is our deepest wish that the judiciary would make a reasonable judgment taking reality into account.

La 3e Pétition pour demander une délibération et un jugement justes pour « Procès pour protéger les enfants de l'irradiation »

Affaires civiles du Tribunal de district de Fukushima

Il existe deux volets dans le « Procès pour protéger les enfants de l'irradiation » : le « procès pour les droits de l'homme chez les enfants » et le « procès des parents-enfants ». Le premier demande la reconnaissance du droit des écoliers et des collégiens du département de Fukushima de jouir de l'éducation dans un environnement sain. La demande s'adresse aux gouvernements locaux. Le second demande la reconnaissance de la responsabilité des exécutifs de ne pas avoir pris des mesures nécessaires et ainsi d'avoir exposé les enfants aux radiations inutilement. La partie civile composée des enfants et de leurs parents, qui étaient résidents dans le département de Fukushima lors de l'accident nucléaire de Fukushima Daiichi, demande des indemnisations à l'Etat et au département de Fukushima.

L'exécutif japonais sous-estime totalement les risques sanitaires liés à l'exposition aux faibles doses de radioactivité et à l'irradiation interne due à la contamination de l'environnement (notamment du sol) ou aux aliments contaminés. Du ce fait, de nombreux enfants subissent une irradiation qu'ils auraient pu éviter. D'après les examens de la thyroïde pratiqués sur les enfants et adolescents âgés de moins de 19 ans lors de l'accident nucléaire, à la date du 25 décembre 2017, le nombre de cancers diagnostiqués s'élève à 193 cas. Toutefois, l'exécutif persiste à considérer qu'il n'y a pas de lien entre ce fait et l'irradiation, et n'a pas ordonné d'enquête pour identifier la cause de la fréquence élevée des cancers. Il est urgent de protéger les enfants de l'irradiation. Puisque l'exécutif refuse de prendre des mesures en ce sens, c'est notre souhait profond que le pouvoir judiciaire rende un jugement se fondant sur le bon sens et tenant compte de la réalité de l'exposition aux éléments radioactifs.

Trois ans et six mois après avoir intenté l'accusation, le procès entre dans la phase où seront examinés les conséquences de l'exposition aux faibles doses ainsi que le risque d'irradiation interne due à la contamination de l'environnement (notamment du sol) ou aux aliments contaminés. Nous demandons au Tribunal du district de Fukushima une délibération et un jugement soignés, rapides et justes, par égard pour la situation et l'inquiétude des enfants et des parents qui ont été brutalement plongés dans un environnement radioactif.

Is this fair? (2)

March 15, 2019

Court absolves government of blame in nuclear disaster

<http://www.asahi.com/ajw/articles/AJ201903150041.html>

THE ASAHI SHIMBUN

CHIBA--A district court here on March 14 absolved the central government of responsibility but ordered the operator of the crippled Fukushima No. 1 nuclear power plant to pay compensation to nine of 19 plaintiffs who evacuated to Chiba.

The Chiba District Court ordered Tokyo Electric Power Co. to pay a total of about 5.1 million yen (\$45,630) to nine plaintiffs who evacuated out of radiation fears following the nuclear accident triggered by the Great East Japan Earthquake and tsunami in March 2011.

The 19 plaintiffs were from six households who voluntarily evacuated from Fukushima to Chiba Prefecture. The plaintiffs sought a total of 247 million yen from TEPCO and the central government. While the presiding judge ordered TEPCO to pay compensation to nine plaintiffs from four households, it denied the central government's responsibility.

"We can't say that it is illegal that the central government didn't force TEPCO to take preventive measures against a tsunami," the judge said.

The ruling conceded that the central government could have foreseen, in 2006 at the latest, that a tsunami could engulf the nuclear power plant, if it reconsidered a long-term appraisal it released in 2002.

The long-term appraisal estimated a 20-percent possibility of a magnitude-8 earthquake occurring between the coast off the Sanriku region in the Tohoku region to the coast off the Boso Peninsula of Chiba Prefecture within the next 30 years.

On the other hand, the court pointed out, "There are a wide variety of risks for nuclear power plants and resources are limited for prevention measures.

"We can't say that the decision to prioritize taking safeguard measures against earthquakes over tsunami was unreasonable."

As for compensation, the verdict noted: "We can't completely deny the risks of damage to evacuees' health," even if living outside evacuation order areas.

Compensation was limited to the nine plaintiffs in amounts ranging between 150,000 yen and 1.12 million yen, depending on where they were living and their current living situation.

When the court's decision was read out, furious voices were heard in the courtroom gallery. One person yelled out, "It is an unfair verdict." Another said, "such a verdict could be made only in Chiba."

Plaintiffs said at a news conference afterward that they are not convinced by the court's decision.

About 30 similar lawsuits have been filed at district courts around Japan. The verdict in the Chiba case is the ninth. Among seven suits in which the central government was named as a defendant, this is the second time that a court has denied the government's responsibility, following another ruling at the Chiba District Court in September 2017.

In February, the Yokohama District Court held the central government and TEPCO responsible for the triple meltdown at the Fukushima No. 1 nuclear plant and ordered both to pay damages to evacuees.

After the ruling on March 14, plaintiff Takahiro Kanno, 56, dropped his shoulders and said, "As our lawsuit was conducted after the favorable verdict (in Yokohama), I expected more but my mind is now blank."

Kanno evacuated from Fukushima to Noda, Chiba Prefecture, along with his wife and three kids seven months after the disaster. He endured a difficult period when his wife was depressed and their children refused to go to school.

"The central government had promoted nuclear power plants since my elementary school days," Kanno said. "But isn't it strange that it says it doesn't have responsibility once accidents occurred?"

Noriko Haneda, 63, head of the plaintiffs, who evacuated to Chiba city from Fukushima along with her daughter, said through tears, "I can't say anything. What has my past eight years been about?"

(This article was compiled from reports by Tomomi Terasawa and Erika Matsumoto.)

How far should medical responsibility go?

March 18, 2019

Lawsuit over 3/11 triage decision shakes medical groups

<http://www.asahi.com/ajw/articles/AJ201903180047.html>

By SUSUMU YOSHIDA/ Staff Writer

SENDAI--A lawsuit over an elderly woman's death in the chaos following the 2011 Great East Japan Earthquake has prompted medical professionals to seek legislation absolving them of responsibility for judgment errors made during triage.

Family members of the 95-year-old woman from Ishinomaki, Miyagi Prefecture, said she died after the Japanese Red Cross Ishinomaki Hospital gave her the lowest priority for treatment after the disaster struck on March 11, 2011.

In the lawsuit filed in October 2018 at the Sendai District Court, the family is demanding about 32 million yen (\$286,720) for compensation, saying the hospital is responsible for her death.

Opening arguments in the lawsuit were heard in January.

Medical associations and legal experts say that a ruling against the hospital would not only be unfair, but it could also affect the way emergency medical staff try to save people's lives after disasters.

"It is difficult to make the absolutely right decision in an extremely short time when diagnostic tools are unavailable," said Yuichi Koido, secretariat of the Japan Disaster Medical Assistance Team (DMAT), an organization commissioned by the health ministry. "It will be impossible to conduct triage under such circumstance if personnel are held responsible for a mistake."

Koido also heads the Japanese Association for Disaster Medicine (JADM), which decided at a board meeting on March 17 to make recommendations for legislation to protect triage staff from litigation. According to the lawsuit, the elderly woman was among hundreds of people taken to the hospital on March 14 after the magnitude-9.0 earthquake and tsunami struck the Tohoku region.

During triage in disasters or mass casualty situations, victims are given color tags depending on the urgency of their need for medical treatment.

Black tags are used for people who have already died or those with such severe injuries that they cannot survive even with the care available.

Patients given red tags have a chance of survival but only with immediate treatment. They are given the top priority.

Yellow tags are reserved for patients who are not in immediate danger of death but require observation and hospital care.

Green tags represent the lowest priority level, and they are for people deemed not in need of medical care by a specialist.

Medical personnel are expected to make such triage decisions in less than 30 seconds per patient.

The elderly woman received a green tag at the front entrance of the hospital building. She died three days later after developing dehydration-related symptoms at the hospital while waiting to be transported to a shelter.

Her family claims the woman should have been given at least yellow status because she had been certified by the municipal government as being in need of level-five nursing care. The plaintiffs noted that her doctor at the Ishinomaki hospital had provided an opinion for the certification.

Level-five means the person is unable to walk or communicate properly. The family said the woman also could not eat on her own.

According to the lawsuit, the hospital is responsible for her death because she was left unattended and unable to eat or drink.

The hospital has rejected the family's arguments.

"We believe that either a doctor or a nurse conducted the triage following proper procedures," a representative of the hospital said. "Primarily, those who are dismissed in triage as not in need of medical treatment are supposed to either go home or move to a shelter."

The representative also noted that the hospital at that time was overwhelmed by up to 600 disaster victims.

"We were in short supply of necessary resources. We gave her an IV. That's the best we could do," the representative said.

Koju Nagai, a lawyer who used to head the disaster assistance team of the Japan Federation of Bar Associations (Nichibenren), has long pointed out potential legal problems involving disaster triage.

"Medical personnel are under duty of care in normal circumstances, and there is no clause to ease it even during times of disaster," Nagai said. "There is always a risk that they will be held accountable for an error, even if it's an unavoidable one."

If triage decisions by nurses or rescue personnel are considered "diagnostic actions," that could constitute a violation of the Medical Practitioners Law, according to Nagai.

"To prevent emergency medical care personnel from feeling daunted, there should be rules and regulations to clarify that they will not be held responsible for a mistake unless it's done intentionally or by gross negligence," Nagai said.

Toshihiro Suzuki, a lawyer who has long been involved in medical-related lawsuits and is a special adviser to the president of Meiji University, said: "First there needs to be a public relief system streamlined for cases that inflict a sacrifice by a patient. Then, there should be a law to clearly exempt doctors and hospitals from liability."

What's TEPCO doing?

TEPCO takes risk over soaring costs at Tokai nuclear plant

<http://www.asahi.com/ajw/articles/AJ201903150001.html>

THE ASAHI SHIMBUN

March 15, 2019 at 07:00 JST

Tokyo Electric Power Co. and other utilities are taking a huge gamble by providing hundreds of billions of yen (billions of dollars) to restart an aging nuclear power plant in need of safety upgrades.

Japan Atomic Power Co. intends to resume operations of the one reactor at the Tokai No. 2 nuclear plant in Ibaraki Prefecture in January 2023, but 300 billion yen--nearly double the initial estimate--is reportedly needed to ensure its safety.

TEPCO, which will be provided with electricity from the Tokai plant, will offer 190 billion yen, or two-thirds of the total cost. Tohoku Electric Power Co., Chubu Electric Power Co., Kansai Electric Power Co. and Hokuriku Electric Power Co. will also offer financial support.

But it remains unclear whether municipalities around the plant will approve the plan to restart the reactor.

If Japan Atomic Power fails to win consent from the local governments and is forced to scrap the Tokai No. 2 plant, TEPCO and other power distributors could suffer big financial losses.

TEPCO was effectively turned into a state property after the crisis unfolded at the Fukushima No. 1 nuclear power plant in March 2011. With taxpayers' money injected into it, TEPCO's plan to offer assistance to another operator's nuclear facility that has no clear prospects of restarting will inevitably provoke controversy.

Japan Atomic Power initially estimated safety improvement costs for a levee to block tsunami and other measures at 174 billion yen.

But the estimate has soared partly because of anti-terrorism equipment needed following the plant's restart.

Under Japan Atomic Power's recently released plan, an estimated 120 billion yen is needed between April 2019 and late 2022 in preparation for the plant's restart.

TEPCO, which will buy 80 percent of the electricity generated at the plant, will cover the same percentage of the expenses, or 96 billion yen.

Tohoku Electric will cover the remaining 24 billion yen, or 20 percent of total cost, based on its ratio of power supplied from the plant.

TEPCO is expected to use bank loans to provide "up-front payments" to Japan Atomic Power for electricity sent from the Tokai No. 2 plant.

Tohoku Electric has yet to decide whether to adopt TEPCO's strategy or offer support through the loan guarantee system.

Between January 2023 and March 2024, following the planned restart, an estimated 180 billion yen will be needed to operate the plant. Japan Atomic Power will borrow the funds from banks.

TEPCO will guarantee 96 billion yen of the debt, while Tohoku Electric will guarantee 24 billion yen, and Chubu Electric and other two utilities will guarantee 60 billion yen.

Although Kansai Electric, Chubu Electric and Hokuriku Electric do not receive power from the Tokai No. 2 plant, they will provide assistance, emphasizing that they used to get electricity from the No. 2 reactor at Japan Atomic Power's Tsuruga nuclear plant in Fukui Prefecture.

The Tsuruga No. 2 reactor, whose operations have been suspended, sits directly above an active fault, so it will be difficult to bring the reactor back online.

The three companies' assistance for the restart of the Tokai No. 2 plant could draw criticism from their shareholders.

"It is difficult to find a reason for offering support as we will not receive electricity from it," an insider said. "The move may result in shareholders' filing a lawsuit against the companies' management."

With two of its four reactors being decommissioned, Japan Atomic Power is struggling financially. The reactor at the Tokai No. 2 plant is the only one with prospects of going online.

Japan Atomic Power has not produced any power recently except for immediately after the accident at the Fukushima No. 1 plant. It is barely surviving on annual basic charges totaling 100 billion yen from TEPCO and four other companies that had concluded power supply contracts with it.

If the Tokai No. 2 plant is decommissioned, Japan Atomic Power would be at greater risk of going under, causing severe losses for utilities that have invested in the company.

That is why the utilities are considering extending a helping hand to Japan Atomic Power.

REMAINING UNCERTAINTY, HIGH RISKS

The Tokai No. 2 nuclear plant, which has operated for more than 40 years, passed tougher safety standards in September last year. And in November, the plant was given permission to extend the reactor's operational life by 20 years.

Japan Atomic Power announced on Feb. 22 its intention to resume operations at the plant.

However, the 2011 earthquake and tsunami caused the loss of outside power sources and an emergency power generator to stop at the Tokai No. 2 plant.

Many locals still oppose the restart of the reactor.

Anti-nuclear sentiment was further fueled when Japan Atomic Power set the restart time for January 2023 without holding sufficient talks with the local municipalities.

Six municipalities near the Tokai No. 2 plant have argued that Japan Atomic Power should gain their consent before the reactor restart. However, Japan Atomic Power has not made clear if it regards their consent as essential.

In addition, evacuation plans for nearly 1 million residents within 30 kilometers of the plant have not been worked out.

Foreign trainees again

March 22, 2019 at 11:00 JST

Foreign trainees housed in hazard area, unaware of tsunami risks

<http://www.asahi.com/ajw/articles/AJ201903220014.html>

THE ASAHI SHIMBUN

MINAMI-SANRIKU, Miyagi Prefecture--Young women eat and sleep under the same roof of a building standing all by its lonesome in the middle of a quiet harbor here.

When the sun rises, they go downstairs to a fishery processing plant and work all day sorting out ocean-fresh "wakame" seaweed and shucking scallops.

In the pitch black of night, they go out using their mobile phones as flashlights to illuminate the steps of their dormitory.

It could be a normal daily scene from any rural fishing village.

However, the women were technical trainees from the Philippines and Vietnam, and the land they lived and worked on was engulfed by a towering tsunami eight years ago.

Ever since then, the area has been designated a "disaster hazard area," restricting people from residing there.

Nevertheless, a local fishery processing company housed the trainees in the two-story building built barely 1 meter above sea level, without informing them of the risk.

"I knew that the Great East Japan Earthquake generated a tsunami and it hit around here," said Gloria, one of the Filipino trainees, who lived in the dormitory. "But I didn't know that this is a designated disaster hazard zone."

Gloria came to Japan in 2016 under the central government's Technical Intern Training Program. Her employer, a local fishery processing company, assigned her to a small room in the plant-cum-dormitory standing on the edge of a fishery harbor in the Utatsu Tomarihama district of Minami-Sanriku.

"It was very dark at night," Gloria recalled. "I immediately asked the company, 'Is it safe to live here?'"

Gloria experienced the potential danger posed by tsunami on Nov. 22, 2016, right after 6 a.m., when her company-provided mobile phone rang. The call was from her Japanese senior colleague at work.

Her co-worker told Gloria that an earthquake had hit off Fukushima Prefecture and a tsunami advisory--later becoming a warning--was issued in Miyagi Prefecture.

"Grab your valuables," her colleague said. "And run! Right now!"

Gloria took the mobile phone, her passport and some food, then ran up a steep hill to a company plant located on higher ground. She spent a few hours there.

"It was a long time ago. I don't remember anything else," Gloria said.

On March 11, 2011, a magnitude-9.0 quake hit the region, spawning a towering tsunami as high as 14.1 meters that engulfed the district, resulting in the loss of lives and the complete destruction of 56 households.

In October 2012, the area was designated a disaster hazard area based on the Building Standards Law. The town's ordinance puts a ban on construction of residential and lodging facilities, restricting human habitation.

Despite the ordinance, the fishery processing company rebuilt its plant, which was severely damaged by the tsunami, on the edge of the harbor in 2013 and made the upper floor a dormitory for foreign trainees. Gloria shared a 10-tatami-mat room stuffed with bunk beds with four other trainees. There was another room the same size where five other trainees lived.

They endured the hard work, picking over and hauling wakame seaweed and shucking scallops.

"Work sometimes started before dawn," Gloria recalled. "We were told at 9 a.m. that we would not be allowed to take a break until we finished shucking all the scallops in the plant. We kept working until 4 p.m. without having a lunch break."

There are a few homes dotted toward higher ground, but Gloria said she did not remember talking with any local residents. The closest convenience store was 40 minutes on foot, forcing her to sometimes hitchhike there.

According to her payslip, she was paid 140,000 yen (\$1,260) a month without overtime hours. From the salary, however, 15,000 yen in rent, 8,000 yen for the electricity bill, other expenses and taxes were deducted. Gloria took home about 80,000 yen afterward.

"But I am happy that I was able to come to Japan," said Gloria, who is the youngest of five children. Her monthly income in the Philippines was equivalent to 20,000 yen.

In Minami-Sanriku, she only kept living expenses and sent the rest to her family, who had taken out a loan for home renovations.

Gloria returned to the Philippines at the end of her three-year training program period in early February. She could have extended her stay for two more years, but she did not.

"There are trainees in the Kanto region who earn twice the money we made here," Gloria said. "I want to work in Japan, but not here."

She hopes to become an interpreter or a Japanese language teacher.

From the training program, Gloria acquired a skill to shuck scallops "fast and cleanly." Will she ever put that to use in her homeland? Probably not.

The president of the fishery processing company denied in an interview with The Asahi Shimbun that he knew the trainees were living in an area at risk of tsunami.

"I was not aware that it was a disaster hazard area," he said.

According to the president, his company recently took in five trainees from Vietnam after Filipino trainees returned home, and the dormitory is currently occupied by 10 trainees.

"If I receive formal guidance from the government, I will follow it," he said.

The town, however, doubts the president's claim of ignorance.

According to an official of the town's construction division, which is in charge of ordinances related to zoning issues, the president formerly resided in the area where the dormitory now stands.

After the disaster, he moved to land developed by the town on higher ground as part of the "collective relocation projects for disaster prevention," which is not far from the dormitory.

The town has held numerous meetings to explain the relocation projects to affected local residents, which include the president himself.

"It is practically guaranteed that every single one of the residents knew about the designation of a disaster hazard area," the official said.

Nonetheless, the presence of trainees in the restricted area has slipped through many layers in the administrative system.

A town division has handled residential registration of the trainees and sent tax documents to the dormitory's address. Yet, officials did not notice a problem.

A supervisory organization in Tokyo that took in the trainees has sent staff to the dormitory's location, but, "the staff didn't notice anything odd about it."

The Justice Ministry's Immigration Bureau issued a residence card to the trainees that lists the dormitory's address. No intervention was done by the government.

Multiple administrative agencies have been involved in the process, and they all overlooked and neglected the trainees who have been unknowingly placed in a dangerous living situation over the years.

The town of Minami-Sanriku said it plans to order the company to improve the situation because the presence of the dormitory in the disaster hazard area is at odds with the law's intent.

"It is troubling that the company has let trainees live in the disaster hazard area without informing them (of the risk)," a city official said.

(This article was written by Yusuke Yamada and Eiji Shimura.)

Fukushima rice rebounds as "industrial" rice

March 20, 2019 at 07:10 JST

March 20, 2019 at 07:10 JST

As fears linger, Fukushima rice rebounds under anonymity

<http://www.asahi.com/ajw/articles/AJ201903200005.html>

By DAISUKE HIRABAYASHI/ Staff Writer

FUKUSHIMA--Shipments of Fukushima rice have rebounded since the 2011 nuclear disaster, but Masao Matsukawa, a rice farmer in the prefecture, is not happy about the situation.

Before the triple meltdown at the Fukushima No. 1 nuclear plant, most of the rice grown at Matsukawa's farm in Sukagawa was sold for household use.

Now, the bulk of his annual harvest of 15 tons is designated for "industrial use," mainly by convenience store and restaurant chains, and simply labeled "domestic product."

"I am so sad about it all," Matsukawa, 74, said. "I am so confident in the rice I grow, so I wish to sell it openly under the 'Fukushima' label."

But rice from the northeastern prefecture is still struggling to reach pre-disaster levels for household use because of lingering consumer concerns about radiation.

The nuclear disaster took a heavy toll on the prices of Fukushima rice.

The "arm's length price" of the rice, for direct transactions between marketing groups and wholesalers, was 10.4 percent below the national average for the 2014 harvest.

However, the price was only 3.0 percent below the national average for the 2018 harvest, according to preliminary figures.

The comeback has been driven by solid demand for industrial use rice for products sold at convenience stores and dishes served at restaurants.

According to a farm ministry survey, industrial use accounted for 65 percent of shipments of rice produced in Fukushima Prefecture in the year through June 2017, one of the highest ratios in Japan.

No comparable figures are available, though, for the pre-disaster period.

When the scope is limited to rice handled by the Fukushima Prefecture branch of the National Federation of Agricultural Cooperative Associations, industrial use accounts for more than 80 percent of the shipments, up about 15 percentage points from pre-disaster levels, officials said.

"There is high demand for industrial use rice from Fukushima Prefecture, which is cheap for its taste," one distributor said.

Industrial use rice often only carries a "domestic" label with no mention of the production area.

But labels on rice for household use usually show the production area. And consumers are still pulling back from Fukushima labels.

Rice of the Tennotsubu strain, a brand from Fukushima Prefecture that debuted in autumn 2011, was put on the shelves at a rice store in Tokyo last year, only to be withdrawn because of next-to-nothing sales.

"Products of Fukushima Prefecture, where the nuclear disaster has had lingering consequences, are not the first to be chosen," the shopkeeper said.

Since 2012, all bags of rice produced in Fukushima Prefecture have been subject to the prefectural government's blanket testing. The screening has cost about 6 billion yen (\$54 million) annually.

Since August 2015, no rice has been found with radioactive substances exceeding the central government's safety standards.

The prefectural government plans to switch to a sample testing, possibly with the 2020 harvest.

According to a Consumer Affairs Agency survey conducted in February, 12.5 percent of consumers are hesitant to buy products from Fukushima Prefecture because of possible radioactive content.

Although that percentage is the lowest since the survey started in 2013, it shows that aversion to Fukushima products remains.

In hopes of further reducing the ratio, the prefectural government in October began sending its workers to rice shops across Japan to advertise the taste and safety of Fukushima rice.

Progress?

22.03.2019_No58 / News in Brief

Japan Survey Shows Increase In Support For Nuclear Plant Restarts

<https://www.nucnet.org/all-the-news/2019/03/22/japan-survey-shows-increase-in-support-for-nuclear-plant-restarts>

Plant Operation

22 Mar (NucNet): Support for restarting nuclear power plants in Japan has increased to 27 % in 2018, up about eight points compared to the previous year, according to a survey of 1,200 people carried out by the Japan Atomic Energy Relations Organisation (Jaero) at the end of 2018.

The Japan Atomic Industrial Forum (Jaif) said Jaero has been conducting the same public opinion survey annually since 2006.

The survey has shown the percentage of those opposed to restarting nuclear plants fell by six points, from 25% in 2017 to 19% in 2018.

On the other hand, Jaif said that solar, wind and hydro were listed by respondents as the top three preferred energy sources for Japan, a result which had been the same even before the Fukushima-Daiichi accident in March 2011.

According to Jaif, the preference for nuclear power rose to 17% in 2018 from 12% the previous year.

All of Japan's 48 reactors were taken offline as a result of the Fukushima-Daiichi accident for safety assessments and upgrading measures. Nine units have since renewed commercial operation.

10th ruling in favour of plaintiffs

<http://mainichi.jp/english/articles/20190326/p2g/00m/0dm/072000c>

Japanese court awards damages to Fukushima evacuees

March 26, 2019 (Mainichi Japan)

MATSUYAMA, Japan (Kyodo) -- A Japanese court on Tuesday ordered the government and Tokyo Electric Power Company Holdings Inc. to pay a combined 27 million yen (\$245,300) in damages to more than 20 people who fled from their hometowns due to the 2011 disaster at the Fukushima Daiichi nuclear power plant.

The Matsuyama District Court awarded payments to 23 of the 25 plaintiffs, who had sought a total of 137.5 million yen in damages. In the wake of the nuclear disaster, they evacuated from Fukushima Prefecture to Ehime Prefecture, where the court is located.

The ruling marked the 10th consecutive loss for TEPCO in a series of similar damages lawsuits. The state was ordered to pay damages for the sixth time.

The plaintiffs claimed the government and the power company had failed to take proper steps to prevent the nuclear plant from being destroyed even though they were capable of foreseeing a potential disaster by 2006 based on official assessments on major earthquake and tsunami dangers.

Supporting their claim, Presiding Judge Keiko Kuboi ruled the government and the utility could have predicted the tsunami based on the assessment, released in 2002, and the plant could have withstood the massive waves had it installed watertight doors and taken other steps against flooding.

The plaintiffs said the compensation they had received from the utility is not enough, given the nuclear crisis triggered by the massive earthquake and ensuing tsunami on March 11, 2011, has separated families and destroyed community ties.

They each demanded 5.5 million yen for their psychological suffering and financial losses, including costs for moving.

The ruling was the 10th among roughly 30 similar damages suits filed across Japan against the government and the utility.

In the trial of the latest case, the government said it could not have foreseen tsunami and did not bear a responsibility to instruct the utility to take preventive measures, while TEPCO claimed it had done what it could do and said it had already paid necessary damages to those affected by the disaster.

All nine previous rulings said TEPCO must pay damages to those affected. Five of them also held the government responsible.

Livres numériques édités

en téléchargement à cette adresse : <https://editionsdefukushima.fr/>

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Vivre 5 ans avec Fukushima. Résumé des effets sanitaires de la catastrophe nucléaire, traduit de l'anglais par Odile GIRARD, mise en page Georges MAGNIER, Editions de Fukushima, 2016, 35 p.

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