

Diaz, Jose

From: Breskovic, Clarence
Sent: Thursday, March 17, 2011 2:28 PM
To: Breskovic, Clarence
Subject: GNOSIS News 2011-03-17

~~For Official Use Only~~

OIP Portal: <http://portal.nrc.gov/OCM/ip/default.aspx>
OIP News Page: <http://portal.nrc.gov/OCM/ip/news/default.aspx>

Global Nuclear Open Source Information Service (GNOSIS) 2011-03-17

Arms Control

Iran: Diplomats say new Iran weapons materials seized

Agence France Presse, March 17, 2011 Thursday 8:39 AM GMT: South Korea and Singapore have intercepted suspected nuclear and weapons materials bound for Iran that breach UN sanctions imposed on the Islamic republic, diplomats Thursday. The two seizures, made in the past six months but only revealed now, add to a growing list of alleged Iran attempts to breach an international arms embargo, which are bringing mounting pressure to tighten sanctions, they "South Korea authorities found more than 400 suspicious tubes in a jet cargo at Seoul airport in December," one diplomat told AFP, giving details from a report to the UN Iran sanctions committee.

Malaysian Police Seize Possible WMD Parts

[*Sun2Surf*, 16 Mar] KUALA LUMPUR (March 16, 2011): Police seized two containers loaded with parts of equipment believed used to make weapons of mass destruction, including nuclear warheads, from a vessel in Port Klang about 40 miles from the capital. The contraband, comprising dismantled parts, was found in the containers on board a Malaysian-registered ship that was bound for the Middle-East.

Cooperation

Taiwan Considering Nuclear Safety Mechanism With China

Taipei, March 17 (CNA) -- Taiwan's Atomic Energy Council has started internal discussions on whether to establish a mechanism with China that would allow the two sides to notify each other in case of nuclear disasters, an official of Cabinet-level Mainland Affairs Council (MAC) said Thursday.

EU Commission Says Technical Team Ready To Leave for Japan

Brussels *EUROPOLITICS* in English 17 Mar 11: The European Commission has announced that a technical evaluation and logistics coordination team of ten people from the MIC (the European civil protection system's information and management mechanism), with a 'radiological and nuclear' component, is ready to head out to Tokyo. In its announcement, on 16 March, the Commission also confirmed that the Japanese government had requested humanitarian aid: mattresses, water bottles and water tanks.

Energy Policy

Israeli premier scraps plans for nuclear power plant

Earthtimes, 2011-03-17: Jerusalem - Israeli Prime Minister Benjamin Netanyahu has decided not to go ahead with plans to build a nuclear power plant as a result of the earthquake-induced nuclear disaster in Japan, Israel Radio reported. A government official, speaking on condition of anonymity, confirmed the report. The plant was to have provided electricity.

Italy nuclear revival grounded by Japan disaster

MILAN, March 17 (Reuters) - Japan's reactor crisis means Italy's plans to reintroduce nuclear power look dead in the wake ahead of a June referendum on the issue. Concern has risen that the Japan disaster may approach the extent of the Chernobyl accident, which was instrumental in turning Italian sentiment against nuclear power in a national referendum in 1987. The government, which had so far stuck to its guns, appeared to soften its stance on the nuclear programme. Industry Minister Paolo Romani said on Thursday Italy needed time to reflect on its nuclear programme.

Indonesia to continue planning for nuclear power plants

JAKARTA, March 16 (Reuters) - Indonesia will continue planning to build nuclear power plants in the earthquake-prone archipelago, despite a nuclear radiation crisis threatening Japan, an official from the national energy board said on Wednesday. Southeast Asia's largest economy is seeing strong economic growth but power supply -- mostly from coal-fired plants -- has been struggling to keep up and brownouts are common. "In relation to nuclear, we are sticking with the bill for long term development which says we must have nuclear power plants by 2019," said Effendi.

Brazil Nuclear Plans Under Scrutiny After Japan Radiation Leaks

SAO PAULO (Dow Jones, 2011-03-16)--The Japanese nuclear crisis is increasing pressure on Brazilian officials to change Latin American country's plans to increase its nuclear power base, yet some say that decision would have more to do with politics than "technical reasons." Brazil is building its third nuclear power plant, the \$5.1 billion Angra 3, with a generating capacity of 1,405 megawatts, and has plans to build as many as four more plants by 2030. But the recent radiation leaks from Japanese facilities after the earthquake and tsunami there may force a change in the Brazilian government's plans. Representatives have already asked for Brazil's congressional environmental committee to meet to discuss the country's energy plan, which calls for an expansion of nuclear power by at least 5,000 MW over the next two decades.

Government & Public Sector

Belgium Criticizes German Decision To Close Down 7 Nuclear Power Plants

Frankfurt/Main *Frankfurter Allgemeine* 17 Mar 11: The German decision to temporarily close down the country's seven oldest nuclear power plants has met with criticism in Belgium. While Interior Minister Annemie Turtelboom spoke of a "onesided and frivolous solo action," Energy Minister Paul Magnette warned against the economic consequences. "If four or six countries took this action, energy supply in the EU would have a real problem," the socialist politician said. Magnette, who himself supports a speedy nuclear phaseout, left it open when Belgium will decide on closing down its facilities.

China Lacks Nuclear Energy Laws, Nuclear Energy Act in Limbo 27 Years

Tokyo *JijiWeb* in Japanese 15 Mar 11: Shanghai - With the accidents at the Fukushima Nuclear Power Station, specialists from China are now expressing concerns about China's lack of legislation that pertains to the safety and management of nuclear power. China is advancing at a rapid pace with the construction of nuclear power plants in order to support

increasing energy demands of its nation and to achieve energy conservation goals. However, 27 years have passed since China embarked on efforts to enact the "Nuclear Energy Act", which would serve as the nation's basic law on nuclear power, but there is still no prospect of a legislative bill being assembled. The 21st Century Economy Report, a Chinese newspaper, reported this information on 15 March.

Lithuanian Parliament Passes Resolution on Belarusian, Russian N-Plant Projects

VILNIUS, Mar 17, BNS -- The Lithuanian parliament on Thursday [17 March] passed a resolution on safety of nuclear plants that are planned to be built in Lithuania and close to its borders. Petras Austrevicius, a Liberal Union MP, said Lithuania should "assess" its bilateral relations with Belarus, which plans to build a nuclear power facility just 50 kilometers away from Vilnius. In the resolution, drafted by the parliament's Foreign Affairs Committee, the Seimas (parliament) expressed concern that radiation exposure areas of the planned nuclear power plants in Belarus and Russia's Kaliningrad region spread over to Lithuania's territory and reach the capital of Vilnius and other cities and settlements, and affect the Nemunas River basin.

Japan and the uses of adversity

The Economist, 2011-03-17: The rest of Asia watches with horror, pity and admiration. FEW bright spots illuminate the bleak sequence of calamities unfolding in Japan. But here are two: the quotidian, stoic heroism with which so many Japanese have responded to devastating loss and terrifying danger; and the outpouring of sympathy and support from around the world. In the many parts of Asia where anti-Japanese sentiment runs deep, the disasters may even be a turning-point in attitudes, bringing a new respect and warmth to perceptions of Japan.

French lawmakers questioning nuclear executives

Businessweek, 2011-03-16: French lawmakers will question nuclear industry executives about the safety of the nation's nuclear plants in an emergency session called in the wake of Japan's atomic crisis. Wednesday's meeting in the lower house of parliament will include the chiefs of nuclear reactor builder Areva and Electricite de France, the world's biggest operator of nuclear plants.

Japan: Bungling, cover-ups define Japanese nuclear power

TOKYO (AP) 2011-03-17 — Behind Japan's escalating nuclear crisis sits a scandal-ridden energy industry in a comfy relationship with government regulators often willing to overlook safety lapses. Leaks of radioactive steam and workers contaminated with radiation are just part of the disturbing catalog of accidents that have occurred over the years and are belatedly reported to the public, if at all. In one case, workers hand-mixed uranium in stainless steel buckets, instead of processing by machine, so the fuel could be reused, exposing hundreds of workers to radiation. Two later died. "Even this is a secret," said Kei Sugaoka, a former nuclear power plant engineer in Japan who now lives in California. "There's not enough transparency in the industry."

India: Leaked Cable on Bribes for Nuclear Deal Sets Off Furor in India

2011-03-16, NYT: NEW DELHI — India's parliament erupted in outrage on Thursday over a report of an American diplomatic cable that described insiders in the governing Congress Party showing off chests of money and boasting of paying or threatening wavering lawmakers to secure passage of a critical 2008 vote on a landmark civilian nuclear deal between India and the United States. The revelations, contained in a July 18, 2008, cable obtained by Wikileaks, portray a massive, all-out effort by the Congress Party to win a confidence vote in India's parliament that could have toppled the wobbly coalition government and doomed the nuclear deal. In the cable, written five days before the critical vote, a political aide to an influential Congress Party lawmaker told a United States Embassy diplomat that one small regional political party had already been paid millions of dollars in bribes for support.

China To Crack Down on Hoarding Amid Salt Panic Over Japan's Nuclear Problem

BEIJING, March 17 (Xinhua) -- China's top economic planner Thursday ordered crackdown on hoarding of daily necessities amid a salt panic spreading throughout the nation. The National Development and Reform Commission said in an urgent notice issued Thursday that local price control authorities should counter rumors about shortages of daily necessities and hoarding of these goods. Rumors in some Chinese cities say that radiation has leaked into the sea from the Fukushima Daiichi nuclear power plant, Japan, compromising the safety of salt taken from the sea in the future. Another reason people have rushed to buy is that salt with iodine is believed to help protect people from nuclear radiation.

EU: Brussels nuclear debate goes into meltdown

EU Observer, 2011-03-17: The European commissioner in charge of climate action, Connie Hedegaard, has signalled decisions on commissioning new energy capacity are "very much likely to be influenced" by the Fukushima nuclear crisis in Japan. In an indication of how the European Commission's nuclear thinking is changing, Hedegaard told a European Energy Association (EWEA) conference on 16 March that "we still have a profound choice". "We can say that if we want nuclear, we should have even more cheap fossil fuels to replace it, or we could say: 'Why not use this opportunity to address the necessity of moving towards a low-carbon emissions society?'" "I think we should do that," she added.

Germany: 'Merkel's Nuclear Realignment Is an Embarrassment'

Der Spiegel, 2011-03-16: Chancellor Angela Merkel's hurried shutdown of seven nuclear reactors in Germany came as a surprise. And it has not been well received. German commentators say that the decision has seriously damaged her credibility

Industry

Insurance industry watches Fukushima nuclear leak closely

Deutsche Welle, 2011-03-17: The highly specialized German Nuclear Reactor Insurance Association (DKVG) partially insures Japan's Fukushima nuclear plant to the tune of tens of millions of euros. But the Cologne-based insurer won't be paying anything. "We do have a stake in the risks in Japan, generally speaking. But the property insurance and liability insurance policies exclude damages from earthquakes, tsunamis and volcanic eruptions," DKVG chief executive Dirk Harbrücke told Deutsche Welle.... The DKVG is a complex network that draws on the resources of numerous German insurers and re-insurers. For each nuclear reactor it insures, it covers up to 256 million euros in damage to third parties. Plant operators have to assume unlimited liability for all claims beyond that value, which is why the four large companies operating reactors in Germany - E.ON, RWE, Vattenfall and EnBW - have banded together in a sort of insurance pact.

Media

Social Media: Radiation data being crowdsourced to fill info gaps

Toronto Star, 2011-03-17: Amateur radiation watchers worried about how much information they're getting have joined in to distribute minute-by-minute data on radiation levels in Japan and the United States. A social and community event website in Tokyo, altTokyo.com, has added a constantly updating graph of radiation levels to its regular information events in the Japanese capital. "Geiger inside on a window sill, 2nd floor, been running for months," the site administrator said in explaining his methods to the dozens of new registrants who latched on to his feed on Thursday alone. A uStream channel also has been uploading and streaming information from other radiation monitoring sites in Japan and west Angeles.

Reactors

Spanish premier orders safety review at nuclear power plants

Madrid *El Pais.com* in Spanish 17 Mar 11: Madrid: Yesterday Prime Minister Jose Luis Rodriguez Zapatero made an u public appearance in the Congress [of Deputies - lower house of parliament] to try to deliver a message of calm abo Spanish nuclear power stations following the disaster in Japan. He said that the power plants are safe, but that he h asked the Nuclear Safety Council (CSN) for an audit of the conditions at all of them. The analysis refers to the possib natural disaster occurring and checking whether it would affect their installations.

Armenia to Increase Safety At Nuclear Plant

YEREVAN. March 17 (Interfax) - Armenia plans to boost safety measures at its nuclear power plant, Prime Minister T Sargsyan said in the European Parliament's Foreign Affairs Committee in Belgium, the government press center said events in Japan make this especially urgent. Naturally, we are discussing safety improvements at our nuclear power with international organizations, responsibility for energy security," Sargsyan said, adding that international organiz and donor countries are assisting Armenia in the effort. IAEA specialists are scheduled to visit Armenia in April, the chairman of the state committee on nuclear security, Ashot Martirosyan, told Interfax. The delegation will include G reactor specialists who will study plant operations.

Philippine Science Secretary Supports Proposal To Open Bataan Nuclear Plant

Manila *Philstar.com* in English 17 Mar 11 : MANILA, Philippines - Amid the developing nuclear crisis in Japan, Scienc Secretary Mario Montejo expressed support for the opening of the Bataan Nuclear Power Plant (BNPP) but stressed precautions should be implemented. "From the technical side, the BNPP has also a containment chamber. So, that n similar (to nuclear power plants in Fukushima) but it uses a higher, a different kind of technology even better than tl in Japan," Montejo said. He said the design load for earthquake of the BNPP is more reliable. Unlike the power plant: quake-hit Fukushima nuclear plants in Japan, Montejo said the BNPP was constructed to withstand earthquakes and tsunamis.

Japan: Russian Experts Believe Fukushima NPP May Be Spared The Worst

MOSCOW. March 17 (Interfax) - Experts from the Kurchatov Institute do not believe in the possibility of a self-induc chain reaction at the Fukushima I nuclear power plant. "I think that the core meltdown of five reactors is the worst t may happen. Most probably, this cannot be avoided," Institute Deputy Director Yaroslav Shtrombakh told a Thursda conference in Moscow. "So far, we believe there is no self-induced chain reaction there," he added.

China to Build Fourth Generation Nuclear Power Station Independently

SinoCast, March 16, 2011 Wednesday 6:17 AM EST : The construct will start at the end of this month or at the begin next month, disclosed Mu Zhanying, general manager of China Nuclear Engineering Group Co. The investment in th project as well as the spending on R&D will reach CNY 5 billion, and it will take approximately four years to complet project, added the general manager of the nuclear power station builder. The Rongcheng-based nuclear power stat project is a joint venture among China Huaneng Group, China Nuclear Engineering Group, and Tsinghua University separately with a stake of 47.5, 32.5, and 20 percent. The three parties will jointly construct and operate the project total installed capacity of 4 million kilowatts in the long run, China's first high-temperature gas-cooled reactor pilot station. A nuclear power station with the fourth generation technology developed independently by China will soor earth in Rongcheng, a city in the coastal eastern Chinese province of Shandong.

India: Why should Jaitapur be made a guinea pig for untested reactor?

DNA, March 17, 2011 Thursday: The Japanese are the world's best experts in earthquake-resistant designs. They are

most knowledgeable in protective designs against tsunami impact. Japan is a country that has a superb disaster management organisation throughout their nation, and an often-rehearsed working team to handle such emergencies. In contrast, in India, we are most disorganised and unprepared for the handling of emergencies of any kind of even minor severity. The Atomic Energy Regulatory Board's (AERB's) disaster preparedness oversight is mostly on paper and the actions they once in a while conduct are half-hearted efforts which amount more to a sham. There needs to be a total re-organisation of the AERB, making it totally independent of the DAE secretary and made technically much stronger with recruitment of reputed senior specialists into that organisation. The ethical standards in the PMO, DAE, NPCIL and others have fallen considerably, especially since 2004, perhaps because of the current prime minister's direct interference with these institutions to meet the political ends of getting the Indo-US nuclear deal passed through parliament. All along, the nuclear agencies of the government have also colluded with, and were assisted by, large Indian and foreign corporations, houses and their federations interested in the sizeable nuclear power market they are helping to create in India.

Czech PM Necas Rejects Shutdown of Nuclear Plants

Prague, March 16 (CTK) - The Czech Republic does not plan to shut down its nuclear power plants, Prime Minister Petr Necas (Civic Democrats, ODS) told the Czech Radio today, responding to the events in Japan and the temporary shutdown of seven German reactors. "I cannot imagine that we would shut down nuclear power plants. That would lead to economic problems on the verge of an economic disaster in our country. We will certainly not do this," Necas said. An entire number of other developed countries, such as France, are not at all considering reducing nuclear energy production, he added.

Japan: Tepco, Others To Discontinue Building Nuke Facilities in Aomori

Aomori, Japan, March 17 Kyodo -- Tokyo Electric Power Co. will discontinue the construction of a new nuclear power plant in Higashidori, Aomori Prefecture, in the wake of severe accidents inflicted on its Fukushima No. 1 nuclear plant in Fukushima Prefecture by last week's catastrophic earthquake and tsunami, a company official said Thursday. Electric Development Co., known as J-Power, and Recyclable-Fuel Storage Co., which is partly owned by TEPCO, also told the Aomori prefectural government the same day that they will shelve their respective projects to build nuclear facilities at the time being.

Japan: Sdf Trucks Begin Shooting Water at Crisis-hit Fukushima Reactor

Tokyo, March 17 Kyodo -- The Self-Defense Forces' fire trucks began shooting high-pressure streams of water Thursday evening at the crisis-hit No. 3 reactor of the Fukushima No. 1 nuclear power plant. The move is part of an unprecedented attempt to cool down the reactor's apparently overheating fuel pool, after SDF helicopters dropped tons of water earlier in the day.

Safety

Japan: Fukushima witness: 'The main road out of here is gridlocked; rationing'

EuroNews, March 16, 2011 Wednesday: The residents of crisis-hit Fukushima face an uncertain future. The town is suffering under the weight of a potential nuclear meltdown, a shattered infrastructure, a lack of fuel, gridlocked roads and snow. (If there is a meltdown). "We will just hop in the car and head directly west to relatives - that's on the way to the other coast, we don't have enough gas to get really much further, but again our options are limited. Going north we have to go through the Sendai area, which will be difficult. Heading south to Tokyo, depending on the wind, Tokyo is just as much at risk of radiation as here. The main road out of here - and you have to remember the expressways are closed to everything except emergency traffic - the main regular road out of here is gridlocked, it is very, very slow going and if you get on that road you won't be able to find any more petrol and I don't know what's going to happen after that."

Japan Sets Limits on Radiation for Food

Tokyo, March 17 (Jiji Press) -- Japan's health ministry on Thursday imposed numerical restrictions for radiation levels for food in the wake of radiation leaks from a quake-hit nuclear power plant in Fukushima Prefecture, northeastern Japan. Health, Labor and Welfare Ministry notified prefectural governments of the regulations the same day and urged them to ensure that food with radiation exceeding the levels set under the regulations will not be shipped or sold under the sanitation law. There have so far been no confirmed cases of food breaching the numerical limits, ministry officials said.

Security

South Korea: Police Identify Man Responsible for Spreading False Radiation Rumor

SEOUL, March 17 (Yonhap) -- Police said Thursday they have identified the original source of a false radiation rumor that rapidly spread nationwide earlier this week through text messages and social networking Web sites, amid growing fears of a radioactive crisis unfolding from Japan's quake-stricken nuclear plant. The National Police Agency's cyber investigation unit said a 28-year-old Seoul office worker allegedly first spread the warning message to his acquaintances through an online messenger service early Tuesday. The man, identified only by his last name Byun, said he notified others after receiving a fake English message from his Vietnamese friend that warned the Korean Peninsula of possible contamination from the Fukushima nuclear power plant.

India: Kaiga tritium leak case still unresolved

The Times of India (TOI), March 16, 2011 Wednesday: The tritium poisoning episode at Kaiga Generating Station (KGS) which exposed about 50 employees to increased levels of radiation 16 months ago, remains unsolved though police investigation is still on. Uttara Kannada superintendent of police Raman Gupta told TOI: "There is no breakthrough yet for cooperation of KGS authorities, Gupta said there's a problem on that count. He added it's a case of mischief. "When there are no eyewitnesses, it's always difficult. There are also some technicalities which are beyond our domain, though we're trying our best to deal with them," he said.

Global Nuclear Open Source Information Service (GNOSIS) 2011-03-17

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U.S. Nuclear Regulatory Commission
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Rockville, MD 20852, USA
Tel: 1-301-415-2364
Fax: 1-301-415-2395
Alternate Email: (b)(6)

Travick, Vanette

From: McCree, Victor
Sent: Thursday, March 17, 2011 2:51 PM
To: Croteau, Rick
Subject: RE: Assistance

K got it

From: Croteau, Rick
Sent: Thursday, March 17, 2011 2:40 PM
To: McCree, Victor
Subject: FW: Assistance

Vic,
Looks like Mel is also interested in Japan.
Rick

From: Shannon, Mel
Sent: Thursday, March 17, 2011 1:55 PM
To: Croteau, Rick
Subject: Assistance

Rick, I would be available to assist as needed. I would be especially interested in assisting in the lessons learned, event timeline, root causes, and decision making aspects of this event.

Experience: Navy Nuclear Operator, RO TMI, SRO Seabrook, QA Lead auditor St Lucie, DRS Inspector, resident inspector, senior resident inspector, HDQTRS inspection program inspector, and construction senior resident inspector.

Travick, Vanette

From: McCree, Victor
Sent: Thursday, March 17, 2011 2:52 PM
To: Shannon, Mel
Subject: RE: Assistance

Mel – do you have a current passport?

From: Croteau, Rick
Sent: Thursday, March 17, 2011 2:40 PM
To: McCree, Victor
Subject: FW: Assistance

Vic,
Looks like Mel is also interested in Japan.
Rick

From: Shannon, Mel
Sent: Thursday, March 17, 2011 1:55 PM
To: Croteau, Rick
Subject: Assistance

Rick, I would be available to assist as needed. I would be especially interested in assisting in the lessons learned, event timeline, root causes, and decision making aspects of this event.

Experience: Navy Nuclear Operator, RO TMI, SRO Seabrook, QA Lead auditor St Lucie, DRS Inspector, resident inspector, senior resident inspector, HDQTRS inspection program inspector, and construction senior resident inspector.

Seymour, Deborah

From: Seymour, Deborah
Sent: Thursday, March 17, 2011 3:20 PM
To: Shannon, Mel; Adkins, Brannen; Gloersen, William; Edwards, Denise
Subject: FW: Launch of FAQ Related to Events Occurring in Japan

Importance: High

From: Moorman, James
Sent: Thursday, March 17, 2011 11:44 AM
To: Ayres, David; Blamey, Alan; Haag, Robert; Seymour, Deborah
Cc: Sloan, Kimberly; Dubose, Sheila; Hearst, Cathleen
Subject: FW: Launch of FAQ Related to Events Occurring in Japan
Importance: High

As discussed in our meeting with Vic this morning, I'm forwarding the link to a SharePoint site that contains information regarding events in Japan. I am sending this to you for forwarding because our email groups are out of date. Please ensure this gets forwarded to all your staff.

Thanks..Jim

From: McCree, Victor
Sent: Wednesday, March 16, 2011 10:00 AM
To: Gody, Tony; Croteau, Rick; Munday, Joel
Cc: Hannah, Roger; Ledford, Joey; Wert, Leonard; Jones, William; Cobey, Eugene; Ogle, Chuck; Moorman, James
Subject: AFW: Launch of FAQ Related to Events Occuring in Japan
Importance: High

Shown below is a link to a (sensitive) Sharepoint site that contains Q&A's associated with the events occurring in Japan [in particular, see the file "**Chairman JaczkoQA7_031511.docx**"]. I believe these Q&As, which are being updated regularly, will be very useful to the Branch Chiefs and Division Directors who will participate in the upcoming ROP EOC public meetings and Fuel Cycle Facility LPRs.

Please note that the document includes 2 types of answers (a "*Public Answer*" and "*Additional technical, non-public information*") and use the information accordingly.:

Thanks, Vic

From: Trojanowski, Robert
Sent: Wednesday, March 16, 2011 8:07 AM
To: McCree, Victor; Wert, Leonard
Subject: FW: Launch of FAQ Related to Events Occuring in Japan
Importance: High

Vic-----FYI-----As we discussed-----Bob

From: Nguyen, Quynh
Sent: Tuesday, March 15, 2011 1:16 PM
To: Thomas, Eric; Sigmon, Rebecca; Powell, Amy; Riley (OCA), Timothy; Browder, Rachel; Erickson, Randy; Tifft, Doug; McNamara, Nancy; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harrah; Maier, Bill
Cc: Stone, Rebecca; Westreich, Barry; Scales, Kerby; Leeds, Eric; Boger, Bruce; Grobe, Jack; Diec, David; Deegan, George; Williams, Donna; Rini, Brett; Wittick, Brian; Andersen, James; Brenner, Eliot; Couret, Ivonne; Burnell, Scott;

Harrington, Holly; Azeem, Almas; Cartwright, William; Cusumano, Victor; Heida, Bruce; Mahoney, Michael; Meighan, Sean; Nguyen, Quynh; Roquecruz, Carla; Susco, Jeremy; Titus, Brett; Valentine, Nicholee; Wertz, Trent; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Evans, Michele; Galloway, Melanie; Gitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; Lund, Louise; McGinty, Tim; Nelson, Robert; Quay, Theodore; Ruland, William; Skeen, David

Subject: Launch of FAQ Related to Events Occuring in Japan

Importance: High

All,

Per Eric Leeds' request and working closely with NSIR and OPA...

The below SharePoint link is the location of our ~~INTERNAL-USE ONLY~~ activities regarding the Japan Events and the effects on their nuclear operations. Again, NO PUBLIC RELEASE of any documents.

Given lessons learned from 9-11, we want to **ensure clear, concise messages in alignment with the Chairman and focus of our safety mission in the United States**. To this end, we established this SharePoint as a centralized location to collect our questions from stakeholders and our draft responses. These draft responses will be vetted by OPA and once approved by OPA – it is OK for use by the staff to answer questions from stakeholders.

As such, please understand that, while we are doing our best to be timely with the most up-to-date information, it is more to important to ensure accurate information is being posted.

<http://portal.nrc.gov/edo/nrr/NRR%20TA/FAQ%20Related%20to%20Events%20Occuring%20in%20Japan/Forms/AllItems.aspx>

Note: "Chairman JaczkoQA7_031511" contains parts that are PUBLIC and additional information for NRC staff.

All correspondence to the public should be directed to our Office of Public Affairs (OPA)!

Additionally, if questions arise out of the Region, please let us know. We'll do our best to coordinate the answer and ensure that we get OPA's blessing.

Thank you for all your support during this time and understanding!

POC:

Quynh Nguyen (301) 415-5844; BlackBerry (b)(6)

Sean Meighan (301) 415-1020

Kirby, Janice

From: Cobey, Eugene
Sent: Thursday, March 17, 2011 3:21 PM
To: Vias, Steven; Calle, Joselito; Sykes, Marvin
Cc: Gepford, Heather; Gody, Tony
Subject: FW: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan

The Agency is developing Q&As related to the events that have occurred in Japan as applicable to fuel facilities that can be used by the staff during public meetings. I am looking for someone to support this effort. Please coordinate and develop a proposal on who can perform this function over the next couple of weeks.

Thanks
Gene

Eugene W. Cobey
Deputy Director, Division of Fuel Facility Inspection
U.S. Nuclear Regulatory Commission, Region II
404-997-4701 (work)

(b)(6)

 (cell)

From: Tschiltz, Michael
Sent: Thursday, March 17, 2011 1:42 PM
To: Hiltz, Thomas; Smith, Brian; Johnson, Robert; Campbell, Larry
Cc: Silva, Patricia; Habighorst, Peter; Bailey, Marissa; Kinneman, John; Smith, James; Liu, Tilda; Mattern, Kevin; Reilly, Breeda; Johnson, Timothy; Naquin, Tyrone; Diaz, Marilyn; Bartlett, Matthew; Ryder, Christopher; Rodriguez, Rafael; Thompson, Richard; Siurano-Perez, Osiris; Baker, Merritt; Gody, Tony; Cobey, Eugene; Dorman, Dan; Haney, Catherine
Subject: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan

In preparation for public interactions following the recent events in Japan, we need to develop a set of Qs and As for our people who will be involved in engaging the public through public meetings here at NRC HQ, Region II and in the vicinity of each of the plants. The Qs and As developed at the Op Center are focused more on reactor plants (I will attempt to obtain these and forward to you).

As such the Branch Chief and PM with the responsibility for the licensing of the facility are being tasked with developing the Qs and As specific to that facility. Issues that need to be addressed are related to impact of a seismic event or other external event (hurricane, tornado, etc..) at the facility.

For example, what is the design basis earthquake for the LES facility? What are the potential impacts of an earthquake that exceeded the design of the facility? What would happen if an earthquake occurred in the vicinity of the LES facility? How would the NRC and LES respond to an earthquake at the facility? What happens if the LES facility were to lose offsite power as a result of an earthquake? Are the emergency power diesels built to withstand the effects of an earthquake, if not what happens when power to the facility is lost?

This is not meant to cover the spectrum of questions we should include when developing the Qs and As, the objective is to identify the types of questions that we would expect to be asked in light of the circumstances in Japan.

Please work to have a first draft of these Qs and As completed by COB Monday March 21st. Please collaborate with Region II. Please submit these to Jim Smith to coordinate but cc the people on this email to keep us aware of the progress being made.

Thanks, Mike

Travick, Vanette

From: McCree, Victor
Sent: Thursday, March 17, 2011 3:25 PM
To: Blamey, Alan
Cc: Moorman, James
Subject: RE: Support to the Agency's Response to Japan's Fukushima Daiichi nuclear plant.

Alan – do you have a current passport?

From: Moorman, James
Sent: Thursday, March 17, 2011 8:57 AM
To: McCree, Victor
Subject: Fw: Support to the Agency's Response to Japan's Fukushima Daiichi nuclear plant.

This email is being sent from an NRC Blackberry device.

From: Blamey, Alan
To: Moorman, James
Sent: Thu Mar 17 06:52:10 2011
Subject: Support to the Agency's Response to Japan's Fukushima Daiichi nuclear plant.

Jim, I wanted to provide a summary of my past experience and let you know that I am interested in supporting the agency's response to Japan's Fukushima Daiichi nuclear plant.

SUMMARY OF QUALIFICATIONS:

Industry Experience

- Senior Reactor Operator License (Quad Cities Nuclear Power Station - BWR 3, Mark 1 Containment Design)
- Lead Nuclear Engineer & Unit Nuclear Engineer
 - Transient and Accident analysis
 - Spent fuel storage
 - Installed High Density Fuel Racks and identified degradation of Bora flex in these racks
- Station Reactor Engineer:
 - Responsible for training and engineering guidance of plant personnel in areas of reactivity control, reactor physics, core heat transfer, core measurement, core physics testing, fuel handling and spent fuel storage.
 - Fulfilled ANSI/ANS 3.1 - 1981 "Engineer in Charge" and "Reactor Engineer" positions
- Qualified Emergency Plan Technical Director
- Emergency core cooling system supervisor
- Station Support Engineering Manager
- Plant Response Team Leader

NRC Experience

- Senior Resident Inspector / Resident Inspector (Susquehanna)
- Team Lead Office of Nuclear Security Special Projects: B.5.b phase 2 (Spent Fuel Pool Cooling).
 - Supported in development of methodology for loss of large areas
 - Led B.5.b evaluations at numerous sites within US. These evaluations developed a comprehensive list of methods that could be used to provide cooling to the spent fuel pool during the loss of large areas of the plant.

- Requested by Office of the Executive Director for Operations to extend rotation to lead closure of the B.5.b Phase 2 project.
- Senior Operations Engineer / Licensee Examiner - 3 years (BWR & PWR)
 - Led / support numerous B.5.b Phase 1 inspections of Region I plants that examined the site's readiness to provide core cooling with the loss of large areas of plants.

Wert, Leonard

From: Giitter, Joseph
Sent: Thursday, March 17, 2011 3:30 PM
To: Nelson, Robert
Cc: Clifford, James; Pederson, Cynthia; Wert, Leonard; Lew, David; Kennedy, Kriss; McGinty, Tim; Ruland, William
Subject: RE: Action: Family Contact Script

Nelson- I believe this answers the mail. The next step is to figure out how we communicate this to everyone.

From: Nelson, Robert
Sent: Thursday, March 17, 2011 3:01 PM
To: Ruland, William
Cc: Giitter, Joseph; Boger, Bruce
Subject: Action: Family Contact Script

I was tasked with developing a protocol for use when the NRC needs to contact the family of a NRC staff member deployed to Japan. I developed the attached in consultation with our agency's EAP coordinator, Sarah Linnerooth. Although prepared as a script, all portions may not be applicable in every case. My suggestions for its use:

1. Contact should only be made by an NRC supervisor, preferably an SES.
2. Stress that the call is not an emergency.
3. Express appreciation for the employee's work and an understanding of the impact on the family
4. Mention EAP availability.
5. Ask for the info.
6. Close by asking the family member if he/she has any questions and concerns.
7. Although not stated in the script, provide a call back number.

Please review/comment/disseminate as appropriate. Let me know if there is anything more I need to do on this.

NELSON

Bartleman, John

From: Bartleman, John
Sent: Thursday, March 17, 2011 4:07 PM
To: Harmon, David
Subject: FW: NEI's update on Japanese reactors

FYI

From: Masters, Anthony
Sent: Tuesday, March 15, 2011 3:39 PM
To: Karlovich, Nicholas; Heher, Patrick; Steadham, Timothy; Bartleman, John
Subject: FW: NEI's update on Japanese reactors

From: Davis, Bradley
Sent: Tuesday, March 15, 2011 3:27 PM
To: Masters, Anthony
Subject: FW: NEI's update on Japanese reactors

From: Don A. Johnson [<mailto:dajohnson@nefnm.com>]
Sent: Tuesday, March 15, 2011 2:35 PM
Subject: NEI's update on Japanese reactors

Earlier today NEI distributed an update on Japanese reactors' status as affected by the earthquake and tsunami.

It is hard to overstate how badly the situation has deteriorated in the last 24 hours at Fukushima Daiichi, although Units 1 and 3 are now at 'cold' conditions, i.e. temperatures below 200 degrees Fahrenheit. Radiation levels have forced abandonment of Unit 1, 2 and 3 control rooms (10-20 R/hr in the control rooms) and a general site evacuation, leaving only 50 people being rotated onto the site to operate the firetrucks that are pumping seawater directly from the bay into the reactor vessels of Units 1, 2 and 3.

Information from Tepco is even less frequent and more confused than over previous days. There has been a breach of primary containment at Unit 2, probably due to a hydrogen explosion in containment, and pressure in that Unit's suppression pool is only slightly above atmospheric. Unit 4 was refueling when the earthquake struck and GE, who was running that outage for Tepco, reported that all the all of the fuel inventory was in the spent fuel pool. The Unit 4 fuel in the spent fuel pool has apparently overheated and started a fire. Cooling to the pool is believed to be unavailable. Water level/temperatures of spent fuel pools at the other units is not known.

Only DC power to instruments is available. No on or off-site AC power is available although portable generators are on-site now.

Westinghouse reported elevated radiation levels at their Tokai fuel facility approximately 70 km away from the Fukushima Daiichi site. The team of 9 US NRC experts requested by Japanese government is in Tokyo and frustrated by lack of information from Tepco.

The Administration has asserted through NRC Chairman Jackzo that US power operations are safe and secure, and any lessons learned will be incorporated into future regulations. INPO has issued 4 recommendations to members today that will require their responses on disaster planning and response.

PG&E reports that its design-basis ground acceleration for accidents at their California Diablo Canyon plant on the Pacific coast south of San Francisco is 0.75g; Southern California Edison, operators of the 2-unit San Onofre PWR station on the Pacific coast north of San Diego, had reported that its design-basis ground acceleration is 0.67g. The similar design basis for Fukushima Daiichi was 0.18g, and the actual acceleration experienced at the quake's epicenter was 0.35g.

Don A. Johnson
Communications Manager

URENCO USA
PO Box 1789
Eunice, NM 88231

Tel: +1 575-394-6099
Mobile: (b)(6)
Email: dajohnson@nefnm.com
Web: www.nefnm.com



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Desai, Binoy

From: Su, Teh-Chiun
Sent: Thursday, March 17, 2011 4:21 PM
To: Desai, Binoy
Subject: RE: Action: Consider potential on-site activities in near-term

Binoy:

The following are my comments and recommendation.

1.

2.

(b)(5)

Thanks!
Teh-Chiun (TC) Su

NRC R2/DRS/EB1
T 404-997-4527
C (b)(6)
Fax 4040 997 4907

From: Desai, Binoy
Sent: Thursday, March 17, 2011 12:58 PM
To: R2DRS_EB1; Su, Teh-Chiun; Walker, Shakur; Sandal, Shane
Subject: FW: Action: Consider potential on-site activities in near-term
Importance: High

Please provide comments on the TI by this evening. Binoy Thanks

From: Munday, Joel
Sent: Thursday, March 17, 2011 12:25 PM
To: Desai, Binoy; Nease, Rebecca
Cc: Hopper, George
Subject: FW: Action: Consider potential on-site activities in near-term
Importance: High

Please have a couple of folks look at this. You may want to weigh in also. It is not very long. Please send your comments to me and George Hopper. I think he may be consolidating a response.

The question was raised on whether the INPO document could be sent to staff reviewing the TI. The answer is yes with the following understanding:

An INPO Event Report Importance Level 1 (IER Level 1) document has been issued on the "Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami." (Reminder: INPO documents are considered proprietary information, not for public distribution)

Sorry, I should have made that clear in the first e-mail.

Tim

Desai, Binoy

From: Desai, Binoy
Sent: Thursday, March 17, 2011 4:38 PM
To: Hopper, George
Cc: Munday, Joel
Subject: FW: Action: Consider potential on-site activities in near-term

From: Su, Teh-Chiun
Sent: Thursday, March 17, 2011 4:21 PM
To: Desai, Binoy
Subject: RE: Action: Consider potential on-site activities in near-term

The following are my comments on the TI

1. (b)(5)

Thanks!
Teh-Chiun (TC) Su

NRC R2/DRS/EB1
T 404-997-4527
C (b)(6)
Fax 4040 997 4907

Desai, Binoy

From: Desai, Binoy
Sent: Thursday, March 17, 2011 4:33 PM
To: Hopper, George
Cc: Munday, Joel
Subject: Draft TI-183 Comments

Binoy Desai comments

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

(b)(5)

Yerokun, Jimi

From: Bill Dwyer [dwyerb@putzam.com]
Sent: Thursday, March 17, 2011 5:16 PM
To: Masters, Anthony
Subject: 70M Link
Attachments: Fire_Boom.pdf

Anthony,

Below is a link for the 70M spec sheet. Two units are in California with quick delivery. The attachment is also of interest. It's our boom used as a high pressure water cannon. I'll send you the link for the 63Z as well. It will be on display in Vegas this coming week at ConExpo Exhibition.

Bill Dwyer
VP Sales & Marketing
Putzmeister America
(b)(6)
800-884-7210

<http://www.putzmeisteramerica.com/products/boompumps/70z/index.cfm>

Moorman, James

From: Bill Dwyer [dwyerb@putzam.com]
Sent: Thursday, March 17, 2011 5:19 PM
To: Masters, Anthony
Subject: Truck-Mounted Concrete Boom Pumps: Products: Putzmeister Concrete Pumping Products

Anthony,

Below is the link for the 63Z. It is also fast delivery---already in Vegas.
Transport by sea is out of L.A., Sacramento, or San Diego.

Bill Dwyer
VP Sales & Marketing
Putzmeister America

(b)(6)

800-884-7210

<http://www.putzmeisteramerica.com/products/boompumps/63z/index.cfm>

Moorman, James

From: Masters, Anthony
Sent: Thursday, March 17, 2011 5:47 PM
To: Blamey, Alan
Cc: Ogle, Chuck; Yerokun, Jimi; Moorman, James; RST07 Hoc; RST01 Hoc
Subject: RE: Pumping concrete into Japanese fuel pools
Attachments: 70M Link; Truck-Mounted Concrete Boom Pumps: Products: Putzmeister Concrete Pumping Products

Alan,

Attached are the latest e-mails from Mr. Dwyer regarding two booms located here in the States that can be deployed quickly. Also, a pdf file detailing the use of a concrete boom truck used for fire fighting at a recycling plant in Germany. The volumes and pressures in the document are in metric units, but here are some estimated conversions for your ease:

5 bar = 72 psi

8 bar = 116 psi

25 l/min = 6.6 gpm

100 l/min = 26 gpm

200 l/min = 52 gpm

400 l/min = 105.6 gpm

Anthony D. Masters, PE

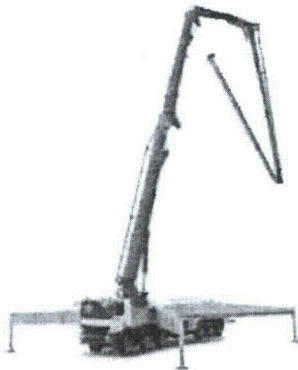
Acting Branch Chief, Construction Projects Branch 1 (CPB1)
U.S. Nuclear Regulatory Commission
Region II - Atlanta
(404) 997 - 4465 (office phone)
(404) 997 - 4917 (fax)
Anthony.Masters@nrc.gov

From: Blamey, Alan
Sent: Thursday, March 17, 2011 5:14 PM
To: RST07 Hoc; RST01 Hoc
Cc: Masters, Anthony; Ogle, Chuck; Yerokun, Jimi; Moorman, James
Subject: RE: Pumping concrete into Japanese fuel pools

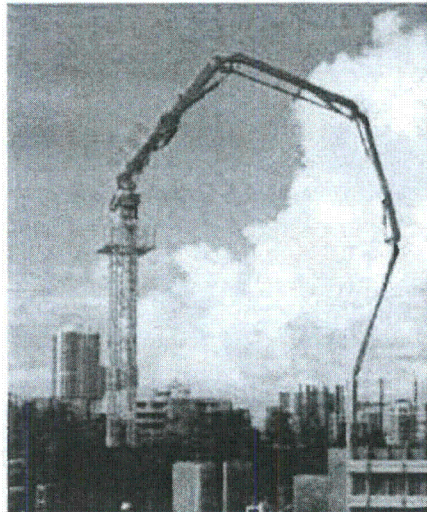
Thanks Chuck, good to hear from you...

We have done some quick research and have the following information.

Based on our review the truck mounted boom pumps can be extended to approximately 230 Feet (about 70 meters). The Stationary Towers can be built to go much higher. These concrete boom pumps can pump water or cement. However, they cannot pump dry sand. It must be a slurry mix. Anthony Masters has contacted two large US manufactures to obtain more details, which are listed below.



Truck Mounted



Stationary

1. Schwing America (888-724-9464), spoke with Doug a regional sales manager (drhiel@schwing.com). He reaffirmed there were no issues pumping water. **If used to pump sand, it would have to be saturated to be flowable.** He suggested using a stationary pump with a vertical mast and affixing a section header on top of the mast to a separate placing boom. He said the stationary pumps have the ability to pump vertically as high as 1800'. They are currently using them to do the 110th floor of the Freedom Bldg in NY. The separate placing boom could articulate out horizontally 39 meters (127 feet). He was going to e-mail some information regarding the maximum pressures and volumes at discharge for pumping water in this type of application. We will forward the information to RST01.HOC@nrc.gov when we receive it.
2. Putzmeister, spoke with Wayne Allen, regional sales manager (817-291-6544), who also confirmed no issues using concrete boom pumps to pump water, but that the sand would have to be flowable. He will also be getting information from engineering regarding the pressure and volumes at discharge for this type of application. He stated he will e-mail me (A. Masters) a couple of "Job Stories" where **they have used their pumps in this type of application and one of which was at Chernobyl.** He stated that the VP of Sales and Marketing, Bill Dwyer, has already been contacting their counterparts in Germany and Japan regarding availability of their equipment. **I spoke with Bill Dwyer (847-404-4592) and confirmed that he has informed his Japanese counterparts that they have two (2) 70 meter (230 feet) boom trucks available for immediate delivery if needed.** He has not received any responses as of today. By immediate, he meant, he could have one ready to ship on Monday and the other next week, because he wanted one of his people to do a quick inspection prior to releasing for shipment. We will forward the information to RST01.HOC@nrc.gov when we receive it.

From: RST07 Hoc
Sent: Thursday, March 17, 2011 2:06 PM
To: Blamey, Alan
Subject: Pummping concrete into Japanese fuel pools

Alan,

I saw a communication from you the other day with suggestions for pumping concrete into the fuel pools in Japan. We are working on this idea as a contingency. If you have worked out any details for this plan please get in touch with the Operations Center 305 816 5100 ask for the RST.

BTW Tim Kolb is with Chuck Casto in Japan.

Chuck Norton

Bartley, Jonathan

From: Bartley, Jonathan
Sent: Friday, March 18, 2011 5:57 AM
To: Ellis, Kevin
Subject: Re: ONS Nozzle Update

Thanks Kevin.

This email is being sent from an NRC mobile device.

From: Ellis, Kevin
To: Sabisch, Andrew; Bartley, Jonathan
Sent: Thu Mar 17 21:52:29 2011
Subject: ONS Nozzle Update

Jonathan/Andy,

I was on the 1700 and 2100 phone call on the 'pumping' reactor safety team call. A website has been developed to show off the 'fog nozzle' movie and the url address has been sent to the Reactor Safety Team as well as INPO. In addition, a schematic showing the proper placement to maximize effectiveness of the nozzle as well as a possible mounting configuration was provided.

It seems as though all necessary information has been provided to the team regarding the nozzle. The team is still evaluating the proper system line-up but it would seem that use of the nozzle should occur at one point or another in this process even if not initially. (i.e. when it is confirmed that there is some water in the pool and the dose levels exceed.)

- Kevin

Masters, Anthony

From: Masters, Anthony
Sent: Friday, March 18, 2011 6:42 AM
To: O'Donohue, Kathleen
Subject: FW: Pumping concrete into Japanese fuel pools
Attachments: 20110317105600794.pdf

FYI

Anthony D. Masters, PE
Senior Construction Inspector
Division of Construction Inspections
U.S. Nuclear Regulatory Commission
Region II - Atlanta
(404) 997 - 4465 (office phone)
(404) 997 - 4917 (fax)
Anthony.Masters@nrc.gov

From: Blamey, Alan
Sent: Friday, March 18, 2011 6:32 AM
To: RST07 Hoc
Cc: RST01 Hoc; Ogle, Chuck; Moorman, James; Yerokun, Jimi; Masters, Anthony
Subject: RE: Pumping concrete into Japanese fuel pools

Chuck, this is the final article we were expecting. Apparently Putzmeister concrete pumps were used at Chernobyl. Items to note in this article is the use of (1) Radiation shielded cabs, (2) remote control pumps and (3) cameras. You may want to forward this information to Bechtel as well.

This completes our scope of work for this strategy. If you need anything else feel free to call.

From: RST07 Hoc
Sent: Thursday, March 17, 2011 8:04 PM
To: Blamey, Alan
Subject: RE: Pumping concrete into Japanese fuel pools

Thanks Alan

I have forwarded this to Bechtel to consider in the development of the plan.

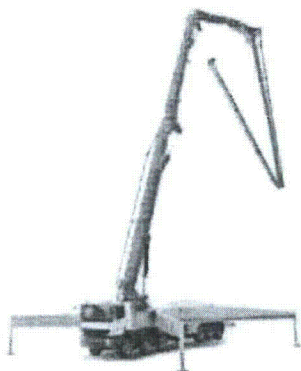
Chuck Norton
NRC RST

From: Blamey, Alan
Sent: Thursday, March 17, 2011 5:14 PM
To: RST07 Hoc; RST01 Hoc
Cc: Masters, Anthony; Ogle, Chuck; Yerokun, Jimi; Moorman, James
Subject: RE: Pumping concrete into Japanese fuel pools

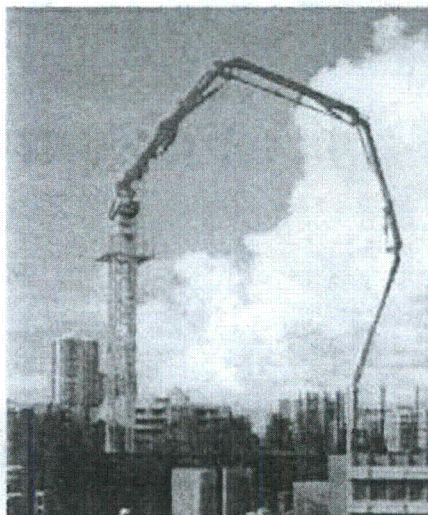
Thanks Chuck, good to hear from you...

We have done some quick research and have the following information.

Based on our review the truck mounted boom pumps can be extended to approximately 230 Feet (about 70 meters). The Stationary Towers can be built to go much higher. These concrete boom pumps can pump water or cement. However, they cannot pump dry sand. It must be a slurry mix. Anthony Masters has contacted two large US manufactures to obtain more details, which are listed below.



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Sent: Thursday, March 17, 2011 2:06 PM
To: Blamey, Alan
Subject: Pumping concrete into Japanese fuel pools

Alan,

I saw a communication from you the other day with suggestions for pumping concrete into the fuel pools in Japan. We are working on this idea as a contingency. If you have worked out any details for this plan please get in touch with the Operations Center 305 816 5100 ask for the RST.

BTW Tim Kolb is with Chuck Casto in Japan.

Chuck Norton

Tracking:

Recipient
O'Donohue, Kathleen

Read
Read: 3/18/2011 6:55 AM

Travick, Vanette

From: McCree, Victor
Sent: Friday, March 18, 2011 6:53 AM
To: Croteau, Rick
Cc: Wert, Leonard
Subject: Re: Action: Consider potential on-site activities in near-term

Thanks Rick. I'm sure we'll get another cut at the TI after comments are integrated and before its finalized. Given the significance, please make sure that Len and I see it before we give our final concurrence.

Vic

This email is being sent from an NRC Blackberry device.

From: Croteau, Rick
To: McCree, Victor
Sent: Fri Mar 18 06:37:43 2011
Subject: FW: Action: Consider potential on-site activities in near-term

Vic,

Attached is the TI. I discussed with the other DRP Div Directors yesterday

(b)(5)

George Hopper is collecting comments and has discussed with Kobetz. Kobetz indicates he is getting many comments. Branch 7 will feed the comments to you once we compile.

Rick

From: Kobetz, Timothy
Sent: Thursday, March 17, 2011 10:54 AM
To: Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael
Cc: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris
Subject: Action: Consider potential on-site activities in near-term
Importance: High

Dear George, Julio, Ray, and Mike,

As I discussed by phone with each of you today, due to the events in Japan, DIRS intends to issue a TI for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued on Tuesday. Here are the highlights:

- It reviews licensee verification of INPO recommendations
- The main focus of the inspection is to assess the licensee's verification, not perform an independent inspection.
- It references applicable NRC inspection guidance when possible (please add on as necessary).
- We have forwarded a copy to INPO to see if they have any objections with us following up on their recommendations.
- It recommends 40 hours per site and allows the regions to take credit for the baseline inspections if possible (I do expect a lot of feedback on the level of effort).
- The information gathered from this TI will be used to evaluate industry's readiness for a similar event and to aid in evaluating whether additional NRC regulatory actions are warranted.

Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov) and to Iris Cutler (iris.cutler@nrc.gov).

I will be out of the office this afternoon but can be reached via e-mail or my cell phone ((b)(6)) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, timothy.kobetz@nrc.gov

The is a new document so it represents a significant change.

From: Brown, Frederick

Sent: Wednesday, March 16, 2011 3:15 PM

To: Kobetz, Timothy

Subject: FW: Action: Consider potential on-site activities in near-term

Importance: High

Tim,

Your action. How quickly can we do a TI out for review?

From: Brown, Frederick

Sent: Wednesday, March 16, 2011 11:17 AM

To: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

Cc: Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

Subject: Action: Consider potential on-site activities in near-term

Importance: High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;

- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,
Fred

Bartley, Jonathan

From: Bartley, Jonathan
Sent: Friday, March 18, 2011 7:13 AM
To: Croteau, Rick; Jones, William
Subject: FW: ONS Nozzle Update

Here's a link that show's the Duke SFP spray nozzles at work being supplied from a Hale pump.

From: Sabisch, Andrew
Sent: Friday, March 18, 2011 6:48 AM
To: Bartley, Jonathan; Ellis, Kevin
Subject: RE: ONS Nozzle Update

Jonathan,

Actually the video itself was loaded on the RII S drive for internal use the folder should be obvious. There seems to be some problems viewing the video on the Duke site from the NRC computers but we will forward that to you in case it can be viewed in the Region

This is the Duke link - http://streams.duke-energy.com/Hale_Portable_Pump_Demonstration.aspx

DORL also added a link on their SharePoint for the Reactor Saftey team

Let us know if any of these options get you to the video

Andy

=====
Andrew T. Sabisch
U.S. Nuclear Regulatory Commission
Senior Resident Inspector
Oconee Nuclear Station
7812B Rochester Highway, Seneca, SC 29672
(O) 864-873-3001 / (C) (b)(6) / (H) (b)(6)

From: Bartley, Jonathan
Sent: Friday, March 18, 2011 6:46 AM
To: Ellis, Kevin; Sabisch, Andrew
Subject: RE: ONS Nozzle Update

Do you guys have the URL of the nozzle web site?

From: Ellis, Kevin
Sent: Thursday, March 17, 2011 9:52 PM
To: Sabisch, Andrew; Bartley, Jonathan
Subject: ONS Nozzle Update

Jonathan/Andy,

I was on the 1700 and 2100 phone call on the 'pumping' reactor safety team call. A website has been developed to show off the 'fog nozzle' movie and the url address has been sent to the Reactor Safety Team as well as INPO. In addition, a schematic showing the proper placement to maximize effectiveness of the nozzle as well as a possible mounting configuration was provided.

It seems as though all necessary information has been provided to the team regarding the nozzle. The team is still evaluating the proper system line-up but it would seem that use of the nozzle should occur at one point or another in this process even if not initially. (i.e. when it is confirmed that there is some water in the pool and the dose levels exceed.)

- Kevin

Woodruff, Gena

From: McCree, Victor
Sent: Friday, March 18, 2011 7:25 AM
To: Trojanowski, Robert; Woodruff, Gena
Subject: FW: Progress Energy

See below, FYI

-----Original Message-----

From: King, Michael
Sent: Thursday, March 17, 2011 12:15 PM
To: McCree, Victor; Musser, Randy; Croteau, Rick; Jones, William; Hannah, Roger
Subject: Progress Energy

FYI...in case you have not seen this already.

Progress prepared a document explaining their response to the events in Japan and citing specific design differences between the Mark 1 containment at Brunswick and the Fukushima plants.

<http://www.progress-energy.com/eventsinjapan.pdf>

Regards,

Mike King
Senior Project Inspector

U.S. Nuclear Regulatory Commission
Region II - Division of Reactor Projects
245 Peachtree Center Avenue, NE - Suite 1427 Atlanta, Georgia 30303
Office: 404-997-4511
Mobile: (b)(6)
Fax: 404-997-4905

Woodruff, Gena

From: Trojanowski, Robert
Sent: Friday, March 18, 2011 7:59 AM
To: McCree, Victor; Croteau, Rick
Cc: Jones, William; Wert, Leonard; Woodruff, Gena
Subject: RE: NCarolina Inquiry

Vic & Rick, I just spoke with Lee, there is some uncertainty as to whether this briefing will occur now; however, if it does, (b)(5)

-----Bob

From: McCree, Victor
Sent: Friday, March 18, 2011 7:23 AM
To: Croteau, Rick
Cc: Jones, William; Wert, Leonard; Trojanowski, Robert; Woodruff, Gena
Subject: FW: NCarolina Inquiry

Rick,

See below. (b)(5)

Vic

From: Trojanowski, Robert
Sent: Friday, March 18, 2011 7:18 AM
To: McCree, Victor
Cc: Wert, Leonard; Woodruff, Gena
Subject: RE: NCarolina Inquiry

Vic, are you going to be in the office today, 3/18/2011; otherwise, we can exchange info via E-Mail.

(b)(5)

Please let me know your thoughts, he did place a call to me, I haven't called him back yet-----
Bob

From: McCree, Victor
Sent: Friday, March 18, 2011 5:19 AM
To: Trojanowski, Robert
Cc: Wert, Leonard
Subject: Fw: NCarolina Inquiry

Bob - let's discuss before responding....

Vic

This email is being sent from an NRC Blackberry device.

From: LIA04 Hoc

To: Trojanowski, Robert; Woodruff, Gena

Cc: Virgilio, Rosetta; McCree, Victor; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard

Sent: Thu Mar 17 21:36:53 2011

Subject: NCarolina Inquiry

Bob/Gena:

(b)(5)

Richard Turtill
State Liaison – Liaison Team
Incident Response Center

Nazario, Tomy

EX#10

From: Breskovic, Clarence
Sent: Friday, March 18, 2011 7:55 AM
To: Breskovic, Clarence
Subject: GNOSIS News 2011-03-18

Global Nuclear Open Source Information Service (GNOSIS) 2011-03-18

OIP Portal: <http://portal.nrc.gov/OCM/ip/default.aspx>

OIP News Page: <http://portal.nrc.gov/OCM/ip/news/default.aspx>

~~For Official Use Only~~

Arms Control

Bombing of Libya Would Become "gift" For Violators Non Non-proliferation Regime - Russian E

MOSCOW. March 18 (Interfax) - The UN Security Council resolution imposing a no-fly zone over Libya will play into the hands of violators of proliferation of weapons of mass destruction regime, Alexei Arbatov, the head of the International Security Center of the Institute of World Economics and International Relations of the Russian Academy of Sciences, said. "An attack against Libya would be a gift for all violators of the Non-Proliferation Treaty," Arbatov said on Friday. "If Libya becomes an object of a military operation, it will lead some countries to believe that it would think of threatening Gadhafi with a military operation now if he had not voluntarily given up his nuclear program several years ago,"

GAO: More Progress Needed in Implementing Recommendations for IAEA's Technical Cooperation Program

GAO, 2011-03-17: As GAO reported in 2009, neither State nor IAEA seeks to systematically limit TC assistance to countries that (1) the United States has designated as state sponsors of terrorism—Cuba, Iran, Sudan, and Syria; (2) are not party to the Treaty on the Non-Proliferation of Nuclear Weapons—India, Israel, and Pakistan; and (3) have not completed comprehensive safeguards or additional protocol agreements with the former head of the TC program told GAO that requests for TC assistance are evaluated strictly on technical merits. GAO found that the lack of sufficient and timely information provided by IAEA on project proposals limits the ability of DOE and the national laboratories to fully assess proliferation concerns associated with the program. Full Report: <http://www.gao.gov/new.items/d11482t.pdf>

Energy Policy

German Environment Ministry Researchers Say Nuclear Exit Possible by 2017

Bonn DW-WORLD.DE 1602 GMT 17 Mar 11: Germany could cover its energy needs without nuclear power by 2017, the research group for the environment ministry has said. It added that by 2050, all the country's energy needs could be covered by renewables. The research group that answers scientific questions for the German environment ministry, the Umweltbundesamt, has calculated that the country could complete its transition from nuclear energy by as early as 2017 and that consumers would not see an appreciable increase in their energy bills. The German government, in the wake of the nuclear crisis in Japan, ordered the shut-down of the seven oldest of the country's 17 nuclear power plants.

Germany: The High Price of Merkel's Nuclear About-Face

Der Spiegel, 2011-03-17: Chancellor Angela Merkel's decision to temporarily shut down seven nuclear reactors could cost the industry more than a half-billion euros and result in Germany not meeting its CO2 emission reduction goals. The rest of the world is taking a wait-and-see approach.

Government & Public Sector

Bitter Weather Puts Brakes on Rescues in Japan

Beijing Global Times Online 18 Mar 11: Thick snow covered the wreckage littering quake-hit Japan Thursday, further hindering rescue efforts for anyone alive in the debris. "The strong smell of bodies and the dirty seawater make searching extremely difficult," Yin Guanghui, a member of a Chinese rescue team working in the battered town of Ofunato, told AFP. More than 10 countries and regions have sent personnel to assist in rescue work. Visibility, however, has dropped considerably, and some rescue teams were pulling back Thursday, fearing they would be unable to return to their bases because of the snow and ice. The United Nations said the snow, rain and "extraordinarily cold weather" had worsened the nation's emergency and were complicating relief efforts that were already hampered by frequent aftershocks. Heavy blizzards hit Japan's north

region overnight, covering tsunami-razed areas in deep snow and vital highways in treacherous black ice.

South Korea: President Hosts 'Emergency Meeting,' Orders Full Review of Nuclear Safety

SEOUL, March 18 (Yonhap) -- President Lee Myung-bak [Yi Myo'ng-pak] on Friday [18 March] ordered an across-the-board safety check on Korea's nuclear reactors, as Japan's nuclear crisis set the alarm bells ringing in this country also dependent on atomic power for much of its demands. Lee issued the order at an emergency meeting of government officials and civilian experts to discuss ways to prevent the Japanese nuclear troubles, according to Lee's office Cheong Wa Dae [ROK Office of the President]. Japan is on the verge of its worst-ever nuclear catastrophe after last week's massive quake and tsunami struck a nuclear power plant in its northeastern region.

Indian Officials Worry Nuclear Liability Law May 'Further Drive Away' Suppliers

New Delhi *Hindustan Times Online* 18 Mar 11: New Delhi -- Japan's nuclear crisis has sparked concerns within the atomic energy establishment in India that cautious foreign firms may now balk at inking nuclear pacts with India because of differing liability norms reinforced by Fukushima. A concern is that the liability law will, after the Japan crisis, further drive away suppliers from tying up with us," a senior Nuclear Power Corporation of India Limited (NPCIL) official told HT.

Romanian Government Sets Up Crisis Cell To Monitor Japan Nuclear Situation

Bucharest, March 17 /Agerpres/ -- The Government on Sunday [20 March] will have a special meeting to assess the situation in Japan in order to organize the evacuation of the Romanian citizens in the Asian country after the problem at the Fukushima nuclear power plant. During the meeting Prime Minister Emil Boc decided the creation of a crisis cell subordinated to the National Commission for Nuclear Activities Control (CNCA) following the proposal made by Foreign Affairs Minister Teodor Baconschi, a cell that could provide the Government information of the progress of the situation, considering that CNCA is the official contact point in Romania of the International Atomic Energy Agency (IAEA), Government spokesperson Ioana Muntean told a press conference at the Victoria Palace.

Japan official: Disasters overwhelmed government

2011-03-18, YAMAGATA, Japan (AP) -- A top Japanese official acknowledged Friday that the government was overwhelmed by the scale of last week's twin natural disasters, slowing its response to the nuclear crisis that was triggered by the earthquake and tsunami that left at least 10,000 people dead. The admission by Chief Cabinet Secretary Yukio Edano came as Japan reached out Friday to the U.S. for help in stabilizing its overheated, radiation-leaking nuclear complex, and as the country reclassified the rating of the nuclear accident from Level 4 to Level 5 on a seven-level international scale. Nuclear experts have been saying for days that Japan was underplaying the crisis' severity.

Germany's Eco-Trap: Is Environmentalism Really Working?

Der Spiegel, 2011-03-18: Germany is among the world leaders when it comes to taking steps to save the environment. But many of the measures are not delivering the promised results. Biofuels have led to the clear-cutting of rainforests, plastics are being burned rather than recycled and energy-saving lightbulbs have led to a resurgence of mercury production.

Industry

Japan's Nissan To Monitor Vehicles for Radioactivity

OSAKA, Japan, March 18, 2011 (AFP) - Nissan Motor said Friday it would monitor all its vehicles made in Japan for radioactivity, amid intense concern over efforts to avert a nuclear catastrophe at a stricken atomic plant. "We will continue to implement all appropriate measures to reassure the public that all products from our company remain within globally accepted safety standards," the company said in a statement. The test will continue "until we are confident that any risk of contamination is completely removed," the automaker said.

Reactors

China: Guangdong Nuclear Plant's Earthquake-Proof Claims Draw Fire

Beijing *Global Times Online* 18 Mar 11: China Guangdong Nuclear Power Group is facing criticism from Internet users for apparently making unrealistic claims about the ability of their facilities to withstand a strong earthquake. An official of the company, which runs eight nuclear power projects, said their plants could withstand a large earthquake that may occur once in every 10,000 years; Chengdu Business Daily reported Tuesday.

U.S. Military Considering Dispatch of 450-member Radiation Unit To Japan

Washington, March 18 Kyodo -- The U.S. military is considering sending to Japan a unit of about 450 personnel trained in radiation management to help the country deal with its cascading nuclear crisis, Adm. Robert Willard, commander of the U.S. Pacific Command, said Thursday. The special unit is capable of monitoring radioactive material and decontamination.

Japan's Nuke Agency Raises Accident Severity Level To 5 From 4

Tokyo, March 18 Kyodo -- Japan's nuclear safety agency said Friday that it has raised the severity level of the country's nuclear accident involving the Fukushima Daiichi nuclear power station to 5 from 4 on a 7-level international scale. The provisional evaluation would mean that the country's disaster has come to the same level as the Three Mile Island accident in the United States in 1979. Among the six reactors at the power plant, No. 1, No. 2 and No. 3 reactors that were operating at the time of the magnitude 9.0 quake halted automatically, but the cores are believed partially melted as they lost their cooling functions after the quake.

Hungary's nuclear plant to undergo stress test

Budapest Business Journal, 2011-03-18: State secretary for energy affairs János Bencsik announced that Hungary's only nuclear power plant will undergo tests to ensure the facility's long term safety. The decision was made in accordance with the EU's plans, after the incident at the Fukushima plant in Japan. A Greenpeace expert claimed to CNBC.com on Wednesday that Hungary's reactors, just like those in Slovakia and Czech Republic, are more dangerous than the European average, because they don't have secondary containment. The Paks plant has instead a hermetically sealed building and a localization tower.

Regulatory Affairs

UK Regulator Mike Weightman on events in Japan

HSE, 2011-03-17: Mike Weightman, chief nuclear inspector and head (director) of the Health and Safety Executive's Nuclear Directorate, the independent nuclear safety and security regulator, said: "Since Friday, the Health and Safety Executive's Nuclear Directorate has been monitoring events in Japan closely. We have provided specialist technical advice to the UK Government and ensured there are no immediate implications for the safety of the UK nuclear facilities. "Chris Huhne, Secretary of State for Energy and Climate Change, has asked me to provide a report on the implications of the unprecedented events in Japan and the lessons to be learned for the UK nuclear industry. There will be an interim report by May 2011 and a final report within six months."

Safety

IAEA plans special meeting Monday (March 21, 2011) on Japan nuclear plants

TOKYO, March 18 (Reuters) - The head of the International Atomic Energy Agency said on Friday that the U.N. atomic watchdog plans to hold an extraordinary meeting on Japan's nuclear plants next Monday. Yukiya Amano, the head of the agency, announced plans for the meeting during a news conference in Tokyo.

Clarence Breskovic
International Policy Analyst
U.S. Nuclear Regulatory Commission
Office of International Programs
11555 Rockville Pike
Rockville, MD 20852, USA
Tel: 1-301-415-2364
Fax: 1-301-415-2395
Alternate Email: (b)(6)

Travick, Vanette

From: McCree, Victor
Sent: Friday, March 18, 2011 8:44 AM
To: Croteau, Rick; Wert, Leonard; Munday, Joel
Subject: FW: EOC MEETINGS

See below, FYI.

As we discussed yesterday, I want either you (or perhaps Bill), Joel, Len or I to be on hand for each our EOC meetings. Let's discuss this on Monday.

Thanks, Vic

-----Original Message-----

From: Collins, Elmo
Sent: Friday, March 18, 2011 8:34 AM
To: Lew, David; Pederson, Cynthia; Dean, Bill; McCree, Victor; Leeds, Eric; Satorius, Mark
Cc: Wert, Leonard; Howell, Art; West, Steven; Shear, Gary; Kennedy, Kriss; Virgilio, Martin; Leeds, Eric
Subject: RE: EOC MEETINGS

Region IV plans to reschedule one EOC meeting, originally scheduled for Thursday of last week - Grand Gulf. (b)(5).

We do anticipate press and media interest at all our EOC meetings at a significantly higher level and in the past. We anticipate that the media will want to put an NRC official on camera, since one is in the area in a public meeting. Accordingly, we plan to have an SES manager and OPA rep at all meetings, something we would not have done in the past.

We think NRR, through the communication team that Eric set up, will arm us with a good set of preparation material for these public meetings.

Elmo

-----Original Message-----

From: Lew, David
Sent: Friday, March 18, 2011 6:22 AM
To: Pederson, Cynthia; Dean, Bill; McCree, Victor; Leeds, Eric; Collins, Elmo; Satorius, Mark
Cc: Wert, Leonard; Howell, Art; West, Steven; Shear, Gary
Subject: RE: EOC MEETINGS

FYI, We will be deferring TMI and Seabrook AAMs (originally scheduled for 3/24 and 3/30, respectively). In addition to all the reasons that have been previously mentioned, we would be challenged in making certain staff available for the open house (e.g., the PAO, RA), since some of these same folks are currently supporting the agency in the ongoing NRC response to the Japanese event and media interest.

-----Original Message-----

From: Pederson, Cynthia
Sent: Thursday, March 17, 2011 10:13 AM
To: Dean, Bill; McCree, Victor; Leeds, Eric; Collins, Elmo; Satorius, Mark
Cc: Lew, David; Wert, Leonard; Howell, Art; West, Steven; Shear, Gary
Subject: RE: EOC MEETINGS

We are fortunate that we have a little more time than some of you in that our first "meetings" are April 5th and they are open houses. These locations (Monticello and Quad

Cities) have had next to no local interest in the past though we expect some this year based on media questions coming in currently. We are planning to invite FEMA to at least some of our events. At this stage we are planning for PA support but are not planning on escalating management level of attendance. (Of course this could change as events unfold.)

-----Original Message-----

From: Dean, Bill
Sent: Thursday, March 17, 2011 9:08 AM
To: McCree, Victor; Leeds, Eric; Collins, Elmo; Satorius, Mark
Cc: Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art
Subject: Re: EOC MEETINGS

Sounds like we are considering similar augmentation tactics. Of course Dave and I have already divvied up VY and Ind pt sites and we are looking to up the participation level elsewhere. Agree that we are making progress in getting a solidified agency message together.

Bill Dean

Regional Administrator

Region I, USNRC

Sent from NRC BlackBerry

----- Original Message -----

From: McCree, Victor
To: Dean, Bill; Leeds, Eric; Collins, Elmo; Satorius, Mark
Cc: Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art
Sent: Thu Mar 17 05:28:20 2011
Subject: Re: EOC MEETINGS

Thanks Bill - I understand your concerns, particularly regarding TMI. In fact, during one of my meetings with staff on yesterday, there was a collective groan when I mentioned that TMI would be your first EOC plant.

As you know, I strongly encouraged the creation of Q&As to better prepare our folks for the meetings. Given the Q&As and the Chairman's testimony yesterday, I feel like we're in a sufficient position in Region II (where we have a couple of facilities that will attract passionate and engaging stakeholders) to move forward with our meetings, as currently scheduled. FYI, we plan to have the Director or Deputy Director DRP participate in all of our EOC meetings. Also, either I or Len will participate in our 3 BWR site EOC meetings.

Vic

This email is being sent from an NRC Blackberry device.

----- Original Message -----

From: Dean, Bill
To: McCree, Victor; Leeds, Eric; Collins, Elmo; Satorius, Mark
Cc: Lew, David
Sent: Wed Mar 16 23:01:50 2011
Subject: RE: EOC MEETINGS

the downside is putting a branch chief, or even an SES manager in a position that they may not be comfortable being in, without adequate guidance/direction/information to provide a consistent and approved message. Until the chairman's testimony today, there has not been a single NRC representative interviewed in a televised media, and do we really want a branch chief to be that person. There is definitely a dichotomy between sites with high interest and what could be expected in terms of protests, media, intervenors, etc. and those that typically receive very little attention. I am suggesting that we ALL have a comfortable feeling that we are appropriately prepared for this evolution. My Branch Chiefs at this

point do not feel prepared. Perhaps the recent release of information associated with today's testimony will help. I asked my team to make a decision by the end of week whether to postpone next Thursday's TMI meeting. I think we can all appreciate the significance that site holds relative to the history of nuclear power and its clear juxtaposition to the events of the past few days.

Additionally, I have asked Eric if there could be materials developed that we all could use to help explain in layman's terms, what has transpired in Japan and he was going to outreach to RES which does well in preparing posters and other similar materials. Not unlike the agency's decision to delay the issuance of the Vermont Yankee license renewal to allow us to appropriately focus on the current events, I feel comfortable in using a similar rationale to delay our assessment meeting a week or so to give us time to be prepared and maybe have in hand some good pictorials that can help explain things.

I included Dave Lew in the email as he is acting for me the next few days.

From: McCree, Victor
Sent: Wednesday, March 16, 2011 10:33 PM
To: Leeds, Eric; Dean, Bill; Collins, Elmo; Satorius, Mark
Subject: EOC MEETINGS

Gents,

I've been reflecting on our abbreviated conversation today regarding the suggestion to delay the subject meetings. I was unsure where we left the matter..., but given that our EOC meetings are scheduled to begin in 1 week, I wanted to make sure that we're on the same page.

I considered the questions shown below and, after answering them, feel comfortable holding to the current EOC meeting schedule. However, there may be other questions and concerns that ought to be factored into the decision:

- (i) What is the downside(s) of holding the EOC meetings as scheduled?
- (ii) What, if any, messages would we send to stakeholders if we delay the meetings?
- (iii) If we delay the meetings, how long should we wait to reschedule them and/or what information should we possess before holding the meetings?

Your thoughts?

Vic

This email is being sent from an NRC Blackberry device.

Travick, Vanette

From: McCree, Victor
Sent: Friday, March 18, 2011 9:52 AM
To: Rzepka, Robert
Subject: RE: NRC Viewing of EDO "All-Hands" Meeting to Address the Nuclear Crisis in Japan

Ok, got it.

-----Original Appointment-----

From: Rzepka, Robert **On Behalf Of** Lee, Pamela
Sent: Friday, March 18, 2011 9:51 AM
To: McCree, Victor
Subject: FW: NRC Viewing of EDO "All-Hands" Meeting to Address the Nuclear Crisis in Japan
When: Friday, March 18, 2011 2:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: R2-1486-32p; R2-1180-25p; R2-945-30p

Vic,

I will notify our folks of the information below and encourage them to dial in. I do not see a need for you to personally provide a brief to us at this time.

Thanks,

Bob

-----Original Appointment-----

From: Lee, Pamela
Sent: Friday, March 18, 2011 9:36 AM
To: Lee, Pamela; R2ORACal Resource; R2MAIL; R2_RESIDENT SITES
Subject: NRC Viewing of EDO "All-Hands" Meeting to Address the Nuclear Crisis in Japan
When: Friday, March 18, 2011 2:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: R2-1486-32p; R2-1180-25p; R2-945-30p

When: Friday, March 18, 2011 2:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: R2-1486-32p; R2-1180-25p; R2-945-30p

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*

Employee News: NRC Viewing of the NRC All-Hands Meeting to Address the Nuclear Crisis in Japan

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This afternoon, Friday, March 18, 2011, at 2:00 p.m., there will be an All-Hands Meeting at HQ to address the ongoing nuclear crisis at the Fukushima Nuclear Reactor site in Japan. RII staff is encouraged to view the proceedings via VTC at one of the following locations:

*Room 1486*  
*Room 1180*

Room 0945

*\*For Resident Inspectors: Bridge line: 888-820-8960; pass code: (b)(6)  
(I was told by Renee Taylor, OEDO, that there should be enough lines available—  
PAMiles on 3/17/11).*

<< Message: EDO Update >>

**Musser, Randy**

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**From:** Musser, Randy  
**Sent:** Friday, March 18, 2011 11:04 AM  
**To:** Hickey, James; Scott, Christian; Andrews, Susan; OBryan, Phil; Kolcum, Gregory; Hitchuk, Betty; Austin, Joseph; Lessard, Patrick; Kroeger, Ann; Worosilo, Jannette; 'Wilson, Gerald'; Caballero, Bruno  
**Subject:** FW: Launch of FAQ Related to Events Occuring in Japan  
**Importance:** High

See sharepoint link below for information regarding the Japanese event. Remember, most of this is non public.

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**From:** Croteau, Rick  
**Sent:** Wednesday, March 16, 2011 10:34 AM  
**To:** R2DRP\_BRANCHCHIEF  
**Cc:** Jones, William  
**Subject:** FW: Launch of FAQ Related to Events Occuring in Japan  
**Importance:** High

---

**From:** McCree, Victor  
**Sent:** Wednesday, March 16, 2011 10:00 AM  
**To:** Gody, Tony; Croteau, Rick; Munday, Joel  
**Cc:** Hannah, Roger; Ledford, Joey; Wert, Leonard; Jones, William; Cobey, Eugene; Ogle, Chuck; Moorman, James  
**Subject:** AFW: Launch of FAQ Related to Events Occuring in Japan  
**Importance:** High

Shown below is a link to a (sensitive) Sharepoint site that contains Q&A's associated with the events occurring in Japan [in particular, see the file "**Chairman JaczkoQA7\_031511.docx**"]. I believe these Q&As, which are being updated regularly, will be very useful to the Branch Chiefs and Division Directors who will participate in the upcoming ROP EOC public meetings and Fuel Cycle Facility LPRs.

Please note that the document includes 2 types of answers (a "*Public Answer*" and "*Additional technical, non-public information*") and use the information accordingly.:

Thanks, Vic

---

**From:** Trojanowski, Robert  
**Sent:** Wednesday, March 16, 2011 8:07 AM  
**To:** McCree, Victor; Wert, Leonard  
**Subject:** FW: Launch of FAQ Related to Events Occuring in Japan  
**Importance:** High

Vic-----FYI-----As we discussed-----Bob

---

**From:** Nguyen, Quynh  
**Sent:** Tuesday, March 15, 2011 1:16 PM  
**To:** Thomas, Eric; Sigmon, Rebecca; Powell, Amy; Riley (OCA), Timothy; Browder, Rachel; Erickson, Randy; Tifft, Doug; McNamara, Nancy; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill  
**Cc:** Stone, Rebecca; Westreich, Barry; Scales, Kerby; Leeds, Eric; Boger, Bruce; Grobe, Jack; Diec, David; Deegan, George; Williams, Donna; Rini, Brett; Wittick, Brian; Andersen, James; Brenner, Eliot; Couret, Ivonne; Burnell, Scott; Harrington, Holly; Azeem, Almas; Cartwright, William; Cusumano, Victor; Heida, Bruce; Mahoney, Michael; Meighan,

Sean; Nguyen, Quynh; Roquecruz, Carla; Susco, Jeremy; Titus, Brett; Valentine, Nicholee; Wertz, Trent; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Evans, Michele; Galloway, Melanie; Giitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; Lund, Louise; McGinty, Tim; Nelson, Robert; Quay, Theodore; Ruland, William; Skeen, David

**Subject:** Launch of FAQ Related to Events Occuring in Japan

**Importance:** High

All,

Per Eric Leeds' request and working closely with NSIR and OPA...

The below SharePoint link is the location of our ~~INTERNAL USE ONLY~~ activities regarding the Japan Events and the effects on their nuclear operations. Again, NO PUBLIC RELEASE of any documents.

Given lessons learned from 9-11, we want to **ensure clear, concise messages in alignment with the Chairman and focus of our safety mission in the United States**. To this end, we established this SharePoint as a centralized location to collect our questions from stakeholders and our draft responses. These draft responses will be vetted by OPA and once approved by OPA – it is OK for use by the staff to answer questions from stakeholders.

As such, please understand that, while we are doing our best to be timely with the most up-to-date information, it is more to important to ensure accurate information is being posted.

<http://portal.nrc.gov/edo/nrr/NRR%20TA/FAQ%20Related%20to%20Events%20Occuring%20in%20Japan/Forms/AllItems.aspx>

Note: "Chairman JaczkoQA7\_031511" contains parts that are PUBLIC and additional information for NRC staff.

All correspondence to the public should be directed to our Office of Public Affairs (OPA)!

Additionally, if questions arise out of the Region, please let us know. We'll do our best to coordinate the answer and ensure that we get OPA's blessing.

Thank you for all your support during this time and understanding!

POC:

Quynh Nguyen (301) 415-5844; BlackBerry (b)(6)

Sean Meighan (301) 415-1020

## Woodruff, Gena

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**From:** OST05 Hoc  
**Sent:** Friday, March 18, 2011 11:22 AM  
**To:** McIntyre, David; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta  
**Subject:** FW: HPS Update on Japan

Just FYI

---

**From:** Browder, Rachel  
**Sent:** Friday, March 18, 2011 11:18 AM  
**To:** LIA04 Hoc; OST05 Hoc; Maier, Bill  
**Subject:** FW: HPS Update on Japan

You all may be receiving the same emails from HPS – just thought I'd pass it along.  
Rachel

---

**From:** HPS Headquarters [<mailto:HPS@BurkInc.com>]  
**Sent:** Friday, March 18, 2011 10:11 AM  
**To:** Browder, Rachel  
**Subject:** HPS Update on Japan



## HPS Update on Japan

### HPS Members:

...ure you are aware of the terrible situation in Japan. The HPS is working on multiple fronts to collect credible information c... nuclear incident, and distribute that information through mainstream and social media outlets and the HPS Web site.

...re your frustration with the misinformation and sensationalism presented by much of the mainstream media. We don't ofte...rtise our efforts, but the HPS maintains an active media liaison and outreach effort all year around; not just during a crisis. ...y Classic and Howard Dickson are leading this charge. I would like to report to you a sampling of their efforts:

...ave communicated with our professional counterparts at the Japan Health Physics Society to offer our assistance and expr... support for their courageous efforts.



have set up a special page on Facebook©

[://www.facebook.com/topic.php?topic=826&post=2780&uid=157387224301493#post2780](http://www.facebook.com/topic.php?topic=826&post=2780&uid=157387224301493#post2780) ) to consolidate media reports and provide additional information, which we believe would be of interest to our audience (uncut and unedited for rapidity of ability).

We are also working to organize television appearances and other media communications for our members to present an alternative perspective on the situation, but with emphasis on radiation safety. We will never be able to respond with the speed of the mainstream media, nor have comparable resources to compete with them, but we will have the information right.

I encourage you to refer the public to our website for the most credible information and links. <http://hps.org/fukushima/>

Most importantly, I encourage you to donate to the Japan relief efforts through the American Red Cross at:

[http://american.redcross.org/site/PageServer?pagename=ntld\\_main&s\\_src=RSG000000000&s\\_subsrc=RCO\\_ResponseStateSe](http://american.redcross.org/site/PageServer?pagename=ntld_main&s_src=RSG000000000&s_subsrc=RCO_ResponseStateSe)

We don't know what other actions our Society should be taking during this nuclear incident.

We know that many of you have also been doing interviews with reporters and we very much appreciate your efforts to get good scientific facts in front of the public. Please take the time to tell Kelly ([media@hps.org](mailto:media@hps.org)) who you interviewed with and the topic and collect all members efforts for historical purposes.

Finally, we all, please keep the people of Japan in your thoughts and prayers.

Respectfully,

Michael

**Bartley, Jonathan**

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**From:** Bartley, Jonathan  
**Sent:** Friday, March 18, 2011 11:23 AM  
**To:** Hannah, Roger  
**Cc:** Sabisch, Andrew  
**Subject:** RE: Clarification Requested: Suggestion?

Roger, do you want to handle this? Andy makes a good point that while he may be the one who thought of using these devices, there were a whole lot of people involved in actually making it happen.

Jonathan

-----Original Message-----

**From:** Sabisch, Andrew  
**Sent:** Friday, March 18, 2011 11:10 AM  
**To:** Bartley, Jonathan  
**Subject:** FW: Clarification Requested: Suggestion?

Jomathan

This is clearly a situation where everyone needs to be thinking about possible solutions as we did in this case. All I did was to serve as a small cog in a big process and that was recognizing that there was something that might help - the station had a myriad of layers that helped pull the material together, get it packed, transport it and then assist in pulling training material together. The Region had people like you that listened to the idea to determine if it had merit. I had help from Kevin running the gauntlet getting info for the Reactor Safety Team. I hope you factor this into any response as there were a number of key people that had a hand in this and if it in fact helps the situation, they all need to be recognized at least internally

Andy

=====  
Andrew T. Sabisch  
U.S. Nuclear Regulatory Commission  
Senior Resident Inspector  
Oconee Nuclear Station  
7812B Rochester Highway, Seneca, SC 29672  
(O) 864-873-3001 / (C) (b)(6) / (H) (b)(6)

**From:** Janbergs, Holly  
**Sent:** Friday, March 18, 2011 10:46 AM  
**To:** Sabisch, Andrew  
**Subject:** Clarification Requested: Suggestion?

Mr. Sabisch,

OPA received information regarding a device intended to assist with the spent fuel problems in Japan. Based on e-mail traffic, it's been difficult to tell where the suggestion originated. Did this come from an NRC employee originally? Please advise.

Thank you,  
Holly Janbergs  
Public Affairs Assistant

## Woodruff, Gena

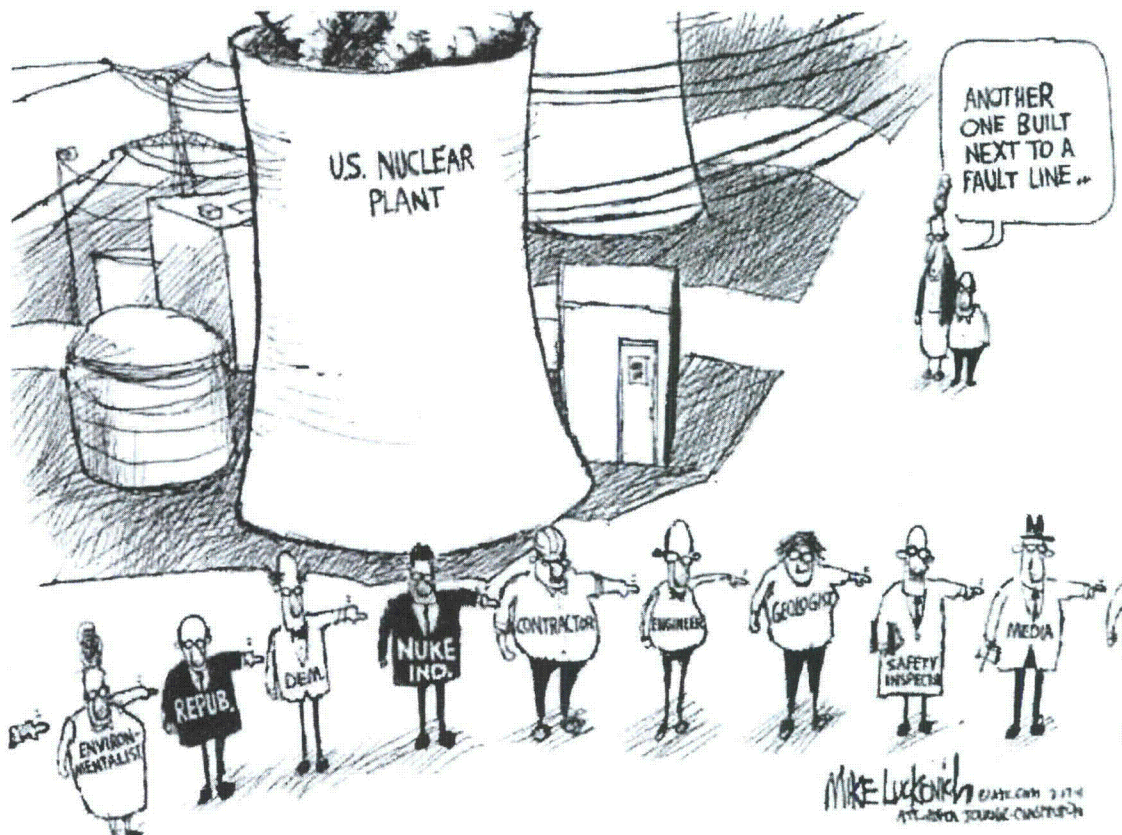
**From:** Joe Gilliland (b)(6)  
**Sent:** Friday, March 18, 2011 11:25 AM  
**To:** Charles and Barbara Hackney; Bob Newlin; Mitch & Carol Carnell; ' Hunt (?); ' Al Belisle  
' Al Gibson ' Al Herdt ' Al Ignatonis ' Bill  
Kleinsorge; ' Bill Miller ' Bill Tobin (b)(6) ' Bob  
Wright ' Bob/Angie Martin ' Bruce Mallett; ' Ed Girard ' Hellan  
Kreeger; ' Hugh Dance (b)(6) ' Jim Coley ' Jim  
Hufham (b)(6) ' Ken Clark; ' Kerry Landis ' Loren  
Plisco; Luis Reyes; Milt Shymlock; Nancy Sanford; ' Nick Economos ' Phil Stohr  
' Taylor ' Uryc ' Woodruff, Gena  
**Subject:** Worth 1000 words  
**Attachments:** image001.jpg

For any in the Atlanta area who missed it, here's the Journal Constitution's editorial cartoon published yesterday.

joe

Joe T. Gilliland

(b)(6)



## **Bartley, Jonathan**

---

**From:** Bartley, Jonathan  
**Sent:** Friday, March 18, 2011 11:47 AM  
**To:** Hannah, Roger  
**Subject:** FW: Information regarding a device that could assist recovering Spent Fuel Pool cooling and inventory at the Japanese Plants  
**Attachments:** Spent Fuel Pool Spray Nozzle Overview.docx  
**Importance:** High

Here is the original paper Andy developed that I sent to HQ to evaluate. They contacted Andy that evening to ask him to coordinate with Duke to crate and ship.

---

**From:** Bartley, Jonathan  
**Sent:** Wednesday, March 16, 2011 2:28 PM  
**To:** HOO Hoc; OPA Resource  
**Cc:** Sabisch, Andrew; Croteau, Rick; Jones, William  
**Subject:** Information regarding a device that could assist recovering Spent Fuel Pool cooling and inventory at the Japanese Plants  
**Importance:** High

Attached is a document that describes a device that Duke developed as a B.5.b strategy for providing cooling to the spent fuel pools after a catastrophic event. Please contact Andy Sabisch, Oconee SRI, if you have any questions or need a POC at Duke to discuss the device.

---

**From:** Sabisch, Andrew  
**Sent:** Wednesday, March 16, 2011 1:40 PM  
**To:** Bartley, Jonathan  
**Subject:** Information regarding a device that could assist recovering Spent Fuel Pool cooling and inventory

Please review this

=====

**Andrew T. Sabisch**  
U.S. Nuclear Regulatory Commission  
Senior Resident Inspector  
Oconee Nuclear Station  
Seneca, SC 29678  
(O) 864-882-6927/6928  
(F) 864-882-0189  
(C) (b)(6)

## Woodruff, Gena

---

**From:** Joe Gilliland [(b)(6)]  
**Sent:** Friday, March 18, 2011 12:23 PM  
**To:** Charles and Barbara Hackney; Bob Newlin; Mitch & Carol Carnell; ' Hunt (?); 'Al Belisle  
'Al Gibson'; 'Al Herdt'; 'Al Ignatonis'; 'Bill  
Kleinsorge'; 'Bill Miller'; 'Bill Tobin'; [(b)(6)]; 'Bob  
Wright'; 'Bob/Angie Martin'; Bruce Mallett; Ed Girard'; 'Hellan  
Kreeger'; 'Hugh Dance'; [(b)(6)]; Jim Coley'; 'Jim  
Hufham'; [(b)(6)]; 'Ken Clark'; 'Kerry Landis'; 'Loren  
Plisco; Luis Reyes; Milt Shymlock; Nancy Sanford; 'Nick Economos'; 'Phil Stohr  
'Taylor'; 'Uryc'; 'Woodruff, Gena'  
**Subject:** NRC briefing Monday

NRC's website ([www.nrc.gov](http://www.nrc.gov)) shows a briefing scheduled at 9 a.m. EDT Monday on the agency's response to recent events in Japan. It also indicates that there will be live video streaming of the briefing.

joe

**Joe T. Gilliland**

[(b)(6)]

## Woodruff, Gena

---

**Subject:** NRC Viewing of EDO "All-Hands" Meeting to Address the Nuclear Crisis in Japan  
**Location:** R2-1486-32p; R2-1180-25p; R2-945-30p

**Start:** Fri 3/18/2011 2:00 PM  
**End:** Fri 3/18/2011 3:30 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

**Meeting Status:** Not yet responded

**Organizer:** Lee, Pamela  
**Required Attendees:** R2ORACal Resource; R2MAIL; R2\_RESIDENT SITES

**When:** Friday, March 18, 2011 2:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).  
**Where:** R2-1486-32p; R2-1180-25p; R2-945-30p

**Note:** The GMT offset above does not reflect daylight saving time adjustments.

\*~\*~\*~\*~\*~\*~\*~\*~\*~\*

### Employee News: NRC Viewing of the NRC All-Hands Meeting to Address the Nuclear Crisis in Japan

~~~~~

This afternoon, Friday, March 18, 2011, at 2:00 p.m., there will be an All-Hands Meeting at HQ to address the ongoing nuclear crisis at the Fukushima Nuclear Reactor site in Japan. RII staff is encouraged to view the proceedings via VTC at one of the following locations:

Room 1486
Room 1180
Room 0945

**For Resident Inspectors: Bridge line: 888-820-8960; pass code: (b)(6)
(I was told by Renee Taylor, OEDO, that there should be enough lines available—
PAMiles on 3/17/11).*



EDO Update

Woodruff, Gena

From: Turtill, Richard
Sent: Friday, March 18, 2011 2:01 PM
To: McGrady-Finneran, Patricia
Cc: Lewis, Robert; Luehman, James; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harrah; Maier, Bill; Virgilio, Rosetta; Jackson, Deborah; Piccone, Josephine
Subject: NRC Announcement about NRC Meeting

NRC folks:

Patricia will be sending out the following today...

OAS, CRCPD, and SLOs:

We had provided incorrect information on yesterday's NRC conference call with the OAS/CRCPD. No national meeting was held last night by the U.S. Department of Energy with State governors as we had suggested, and we apologize for that miscommunication.

Also, we wish to reinforce that a Commission meeting will be held on Monday, March 21, 2011 at 9:00 am. Title: "Briefing on NRC Response to Recent Nuclear Events in Japan." This is a public meeting and can be viewed via webcast.

Please use the following link to access the webcast.

<http://www.nrc.gov/public-involve/public-meetings/webcast-live.html>

Thank you.

FSME/NRC

Nazario, Tomy

From: Breskovic, Clarence
Sent: Friday, March 18, 2011 2:02 PM
To: Breskovic, Clarence
Subject: Japan OIP SharePoint Site Updated

<http://portal.nrc.gov/OCM/ip/countries/japan/default.aspx>

Clarence Breskovic
International Policy Analyst
U.S. Nuclear Regulatory Commission
Office of International Programs
11555 Rockville Pike
Rockville, MD 20852, USA
Tel: 1-301-415-2364
Fax: 1-301-415-2395
Alternate Email: (b)(6)

Woodruff, Gena

From: McIntyre, David
Sent: Friday, March 18, 2011 2:27 PM
To: OST05 Hoc; Meighan, Sean; Nguyen, Quynh
Cc: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; LIA05 Hoc
Subject: RE: USAID Fact Sheet

This is good. If USAID intended it to be public, I see no reason not to distribute it.

From: OST05 Hoc
Sent: Friday, March 18, 2011 2:19 PM
To: OST05 Hoc; Meighan, Sean; Nguyen, Quynh; McIntyre, David
Cc: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; LIA05 Hoc
Subject: RE: USAID Fact Sheet

Dave,

The attached USAID Fact Sheet came across an e-mail and I sent this out to internal folks. Just sending it for your information and seeing if you would like to review it to determine if the information in the fact sheet could be provided in response to inquiries or just keep this internal?

Kim Lukes
State Liaison – Liaison Team
Incident Response Center

From: OST05 Hoc
Sent: Friday, March 18, 2011 1:47 PM
To: Meighan, Sean; Nguyen, Quynh
Cc: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Subject:

FYI – Attached is a USAID fact sheet that was just received.

Sean and Quynh – Please consider adding this to the Sharepoint site.

Startz, Paul

From: Kimberly Gibson [nancy@ewi.ccsend.com] on behalf of Kimberly Gibson [events@ewi.org]
Sent: Friday, March 18, 2011 2:48 PM
To: Startz, Paul
Subject: Special Update: A Conference Call & Webinar About the Japanese Fukushima Daiichi Nuclear Power Plant

Having trouble viewing this email? [Click here](#)

The Facts About the Japanese Fukushima Daiichi Nuclear Power Plant: A Conference Call & Webinar Provided by EWI Energy Center

Tuesday, March 22nd 2011 at 2:00 pm - 3:00 pm EST

The recent events in Japan have heightened public concern over the safety and feasibility of using nuclear power. This concern, coupled with the data fog that has been created by media outposts looking to put a unique perspective on the situation, has created an atmosphere where the lines between fact and conjecture are extremely blurred. At EWI, we pride ourselves on being unbiased and fact-based. When we are not the technology experts, we reach out to those who are to verify the data that impacts our business.

As a trusted partner and collaborator for EWI, we want you to have access to the data regarding the situation at Japan's Fukushima Daiichi Nuclear Power Plant in a form that is understandable to a non-Nuclear Engineer. As such, the EWI Energy Center has organized a conference call and webinar that will give you access to experts from the nuclear industry. They will provide you with the chain of events, without sensationalism or hypotheses, regarding what has transpired in Japan over the last week and half. You will hear directly from the experts and will have an opportunity to get your questions answered.

Our panel of industry experts include:

David Blee - U.S. Nuclear Infrastructure Council
Lake Barrett - Former Deputy Director, Office of Radioactive Waste Management
Marc Goldsmith - Principal, MGA LLC & Former VP, Stone & Webster
Edward Davis - Former President, American Nuclear Energy Council
Dan Yurman - American Nuclear Society
Nate Ames - Director, Nuclear Fabrication Consortium, Operated by EWI

You can join the discussion in two ways on Tuesday:

- Via teleconference by dialing **614.384.5247** and using pin code: (b)(6) #
- Via the web by using the following link:
<http://InstantTeleseminar.com/?eventID=18477552>

The call and webinar will start at 2:00 pm EST on Tuesday, March 22, 2011, so please tune in at that time.

For more information, **view the fact sheet** located on <http://nuclearfabrication.org/facts-about-fukushima/> or contact Kimberly Gibson, Director of EWI Energy Center at info@ewienergycenter.com.

Kimberly Gibson
Director, EWI Energy Center
614.688.5180
info@ewienergycenter.com

About EWI Energy Center:

The Center provides technology innovation and economic development by assisting both advanced energy companies and large manufacturers in tackling challenges in product development, process engineering, and manufacturing. To learn more, visit <http://ewienergycenter.com/>.

About Nuclear Fabrication Consortium, Operated by EWI:

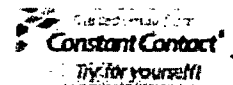
The Nuclear Fabrication Consortium (NFC) was established to independently develop fabrication approaches and data that support the re-establishment of a vibrant US nuclear industry. To learn more, visit <http://nuclearfabrication.org/>.

About the U.S. Nuclear Infrastructure Council (NIC):

The U.S Nuclear Infrastructure Council is a leading national think tank advocate for a new generation of nuclear energy in the United States. The Council's members include a "Who's Who" of the nuclear energy community involved in nuclear energy new build (www.nuclearinfrastructure.org).

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EWI : 1250 Arthur E. Adams Drive | Columbus | OH | 43221-3585

Woodruff, Gena

From: Saah, Donald
Sent: Friday, March 18, 2011 3:32 PM
To: alan.schriber@puc.state.oh.us; Allan.Barker.@NRC.GOV;
andrew.grandjean@puc.state.oh.us; arnetta.mcrae@state.de.us;
arthur.marcelynas@po.state.ct.us; Barker, Allan; barry.perlmutter@state.ma.us;
barry.smitherman@puc.state.tx.us; baxley@psc.alabama.gov; bborum@urc.in.gov;
bhutton@psc.state.md.us; bmcnulty@psc.state.fl.us; boconnell@naruc.org;
brian.rounds@state.sd.us; Browder, Rachel; c.garbacz@psc.state.ms.us;
cbox@icc.illinois.gov; (b)(6); christina.lepage@ct.gov;
commissioners@scc.virginia.gov; cshort@psc.state.wv.us; dan.ebert@psc.state.wi.us;
DanC@psc.state.ga.us; daryl.newby@ky.gov; david.c.boyd@state.mn.us;
david.coen@state.vt.us; david.foster@tn.gov; david.wright@psc.sc.gov; dbyers@utc.wa.gov;
deverett@psc.state.ga.us; dgill@state.pa.us; diane.munns@iub.state.ia.us;
diane_barney@dps.state.ny.us; dnazarian@psc.state.md.us; dziegner@urc.in.gov;
eddie.roberston@tn.gov; ejohnson@azcc.gov; Erickson, Randy; faith.huntington@maine.gov;
finley@ncuc.net; Flannery, Cindy; frank.landis@nebraska.gov; (b)(6);
garry_brown@dps.state.ny.us; gene.fadness@puc.idaho.gov; hannemanj@michigan.gov;
hhouse@state.pa.us; j.miller@occmil.com; Jackson, Deborah; James.Kottan@NRC.GOV;
james.spearman@psc.sc.gov; james.volz@state.vt.us; janis.dillard@state.de.us;
jeanne.fox@bpu.state.nj.us; Jeff.Davis@psc.mo.gov; jeff.kaman@iub.state.ia.us;
jeff.kitsembe@wisconsin.gov; jgoltz@utc.wa.gov; jharlow@psc.state.fl.us; jhc@state.pa.us;
(b)(6); jnwude@psc.dc.gov; johlevin@state.pa.us; john.free@psc.alabama.gov;
john_roberts@dps.state.ny.us; jpclark@michigan.gov; jstutsma@icc.illinois.gov;
jzenger@utah.gov; Karen.Larsen@usda.gov; ken.zimmerman@state.or.us;
kevin.delgobbo@po.state.ct.us; khafner@state.pa.us; kim.wissman@puc.state.oh.us;
kindschyl@michigan.gov; kmayes@azcc.gov; lau@cpuc.ca.gov; lauren.azar@wisconsin.gov;
LeRoy.Koppendraye@state.mn.us; lib.fleming@psc.sc.gov; linda.roberts@ct.gov;
lmcdonald@psc.state.ga.us; Logaras, Haral; lorena.holley@psc.state.fl.us;
louann.westerfield@puc.idaho.gov; Luehman, James; Lukes, Kim; Lynch, James;
lynn.posey@psc.state.ms.us; mack.redford@puc.idaho.gov; Maier, Bill;
majames@regstaff.sc.gov; malbert@psc.state.wv.us; matt.muldoon@state.or.us;
mcarter@psc.state.fl.us; McGrady-Finneran, Patricia; McNamara, Nancy;
mike.kaluzniak@state.mn.us; mp1@cpuc.ca.gov; nathan.a.skop@psc.state.fl.us;
nucci@puc.state.ri.us; oneal.hamilton@psc.sc.gov; Orendi, Monica;
paul.hibbard@state.ma.us; Piccone, Josephine; rajendra_addepalli@dps.state.ny.us;
Rautzen, William; Reis, Terrence; rfp@state.pa.us; richard.bertelson@ky.gov;
richard.raff@ky.gov; Rivera, Alison; robert.mercier@ct.gov; robert.curry@dps.state.ny.us;
roberta.bass@psc.state.fl.us; rrismill@icc.illinois.gov; russell.profozich@ferc.gov; Ryan,
Michelle; Salomon, Stephen; sandra.waldstein@ferc.gov; sarah.hofmann@state.vt.us;
shereek@psc.state.ga.us; shirley.frierson@tn.gov; sloudenslager@psc.state.ar.us;
tamara.turkenton@puc.state.oh.us; thomas.bessette@state.ma.us; Tifft, Doug;
tim.texel@nebraska.gov; tom.getz@puc.nh.gov; Trojanowski, Robert; tulin.koray@la.gov;
Turtill, Richard; twright@kcc.ks.gov; txb@cpuc.ca.gov; Virgilio, Rosetta; White, Duncan;
whiteg3@michigan.gov; william.bowker@ky.gov; William.Maier@NRC.GOV; Woodruff, Gena;
wrosquist@mt.gov
Subject: NRC PUBLIC MEETING 9:00 AM MONDAY, MARCH 21, 2011: NRC's RESPONSE TO
RECENT NUCLEAR EVENTS IN JAPAN

This is to inform you that the U.S. Nuclear Regulatory Commission (NRC) staff will brief the Commission Monday, March 21, 2011, at 9:00 a.m. regarding NRC's response to recent nuclear events in Japan. The meeting is public and will be held at NRC Headquarters at 11555 Rockville Pike, Commissioners' Conference Room, in Rockville, Maryland.

The meeting can also be viewed via Webcast at: <http://www.nrc.gov/public-involve/public-meetings/webcast-live.html>

Rosetta O. Virgilio

Senior Liaison Project Manager
Intergovernmental Liaison Branch
U.S. Nuclear Regulatory Commission
11545 Rockville Pike - T-8F42
Rockville, MD 20852-2738
301-415-2367
Rosetta.Virgilio@nrc.gov

Woodruff, Gena

From: opa administrators [opa@nrc.gov]
Sent: Saturday, March 19, 2011 3:32 PM
To: Woodruff, Gena
Subject: NRC Posts Updated Seismic Questions and Answers
Attachments: 11-053.pdf

Travick, Vanette

From: Bernhard, Rudolph
Sent: Friday, March 18, 2011 4:01 PM
To: Casto, Chuck
Subject: alternate fuel pool fill

Vic said you still read these.

For those fuel pools that may still hold water, if the inner liner is faulted, don't forget that the inter liner drain path could be used as a fill path for borated water. It would fill the space between the two stainless liners, and hopefully leak or flow through faults in the inner liner, and spill into the pool. If the pool bottom or sides have faulted, the line may get water close enough to splash any rubble. The air system to the skimmer surge and the rhr supplemental lines they surely have thought of.

I'll drink some coffee for you tomorrow.

Home email is

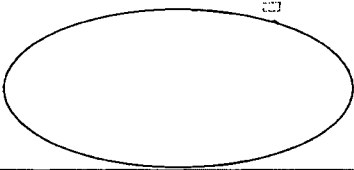
(b)(6)

Woodruff, Gena

From: opa administrators [opa@nrc.gov]
Sent: Saturday, March 19, 2011 4:11 PM
To: Woodruff, Gena
Subject: *UPDATED* Media Advisory: Nuclear Regulatory Commission to Hold Public Meeting on
Attachments: MA_03-18-2011_JapanBriefing.pdf

Woodruff, Gena

From: opa administrators [opa@nrc.gov]
Sent: Friday, March 18, 2011 4:13 PM
To: Woodruff, Gena
Subject: Nuclear Regulatory Commission to Hold Public Meeting on NRC Response to Recent Japan Event
Attachments: MA_03-18-2011_JapanBriefing.pdf



Diaz, Jose

From: Diaz, Jose
Sent: Friday, March 18, 2011 4:16 PM
To: 'allusers@roswellstreet.com'
Subject: Japan Information
Attachments: ENGNEWS01_1300433768P.pdf

Importance: High

Since many of you have ask about the Japan situation. Here is a reasonable summary by the Nuclear Plant Journal, one of my subscriptions. Note: This information is not coming from my agency, but it is pretty informative and presents a unit-by-unit comparison of the status at Fukushima site units.

Status of nuclear power plants in Fukushima as of 16:00 March 18 (Estimated by JAIF)

Power Station	Fukushima Daiichi Nuclear Power Station					
Unit	1	2	3	4	5	6
Electric / Thermal Power output (MW)	460 / 1380		784 / 2381			1100 / 3293
Type of Reactor	BWR-3	BWR-4	BWR-4	BWR-4	BWR-4	BWR-5
Operation Status at the earthquake occurred	In Service → Shutdown	In Service → Shutdown	In Service → Shutdown	Outage	Outage	Outage
Core and Fuel Integrity	Damaged	Damaged	Damaged	No fuel rods	Not Damaged	Not Damaged
Reactor Pressure Vessel Integrity	Unknown	Unknown	Unknown			
Containment Vessel Integrity	Not Damaged	Damage Suspected	Might be "Not damaged"	Not Damaged	Not Damaged	Not Damaged
Core cooling requiring AC power	Not Functional	Not Functional	Not Functional	Not necessary	Not necessary	Not necessary
Core cooling not requiring AC power	Not Functional	Not Functional	Not Functional	Not necessary	Not necessary	Not necessary
Building Integrity	Severely Damaged	Slightly Damaged	Severely Damaged	Severely Damaged	Not Damaged	Not Damaged
Water Level of the Reactor Pressure Vessel	Fuel exposed	Fuel exposed	Fuel exposed	Safe	Safe	Safe
Pressure of the Reactor Pressure Vessel	Stable	Unknown	Stable	Safe	Safe	Safe
Containment Vessel Pressure	Unknown	Low	Low	Safe	Safe	Safe
Water injection to core (Accident Management)	Continuing (Seawater)	Continuing (Seawater)	Continuing (Seawater)	Not necessary	Not necessary	Not necessary
Water injection to Containment Vessel (AM)	Continuing (Seawater)	to be decided (Seawater)	Continuing (Seawater)	Not necessary	Not necessary	Not necessary
Containment venting (AM)	Temporarily stopped	Temporarily stopped	Temporarily stopped	Not necessary	Not necessary	Not necessary
Fuel Integrity in the spent fuel pool	Water injection to be considered	(No info)	Water level low, Water Injection continue	Water level low, Preparing Water Injection Hydrogen from the pool exposed	Pool Temp. Increasing	Pool Temp. Increasing
Environmental effect	NPS border: 646.2 μ Sv/h at 11:10, Mar. 17					
Evacuation	20km from NPS * People who live between 20km to 30km from the Fukushima #1NPS are to stay indoors.					
Remarks	Immediate threat is damage of the fuels in the fuel pool outside the containment vessel at Unit-1, 2, 3 and 4. The operation for filling the pool with water has been conducted since March 17 at Unit-3. Attempting to receive external power supply, TEPCO is laying a power cable between the transmission line and Unit-2.					

Power Station	Fukushima Daini Nuclear Power Station			
Unit	1	2	3	4
Electric / Thermal Power output (MW)			1100 / 3293	
Type of Reactor	BWR-5	BWR-5	BWR-5	BWR-5
Operation Status at the earthquake occurred	In Service → Automatic Shutdown			
Status	All the units are in cold shutdown.			
Remarks	Unit-1, 2, 3 & 4, which were in full operation when the earthquake occurred, all shutdown automatically. External power supply was available after the quake. While injecting water into the reactor pressure vessel using make-up water system, TEPCO recovered the core cooling function and made the unit into cold shutdown state one by one. Latest Monitor Indication: 15.9 μ Sv/h at 12:00, Mar. 17 at NPS border Evacuation Area: 10km from NPS			

[Significance judged by JAIF]
: low

: high

: severe

Power Station	Onagawa Nuclear Power Station		
Unit	1	2	3
Operation Status at the earthquake occurred	In Service → Automatic Shutdown		
Status	All the units are in cold shutdown.		
Remarks	Unit-1, 2 & 3 all shutdown automatically when the earthquake occurred. Unit-2 & 3 were then led into cold shutdown state. Unit-2, which had just started operation after planned outage, got into cold shutdown immediately.		

Power Station	Tokai Daini	
Operation Status at the earthquake occurred	In Service → Automatic Shutdown	
Status	In cold shutdown.	
Remarks	Tokai Daini NPP, which was in full operation when the earthquake occurred, shutdown automatically. Core cooling function was gotten into service after external power supply was recovered on Mar. 13.	

[Source]

Governmental Emergency Headquarters: News Release (3/17 20:00, 3/18 6:00), Press conference (3/14 11:45, 16:15, 3/15 8:00, 11:00, 16:25, 3/16 11:15, 3/17 11:31)

NISA: News Release (3/14 7:30, 3/16 14:00, 20:08, 3/17 17:30), Press conference (3/16 12:00, 3/17 20:30)

TEPCO: Press Release (3/14 16:00, 17:35, 3/15 6:00, 12:00, 16:30, 23:35, 3/16 0:00, 3/17 11:30, 12:00),

Press Conference (3/14 12:10, 20:00, 3/15 8:00, 8:30, 3/16 early morning)

[Abbreviations]

INES: International Nuclear Event Scale

NISA: Nuclear and Industrial Safety Agency

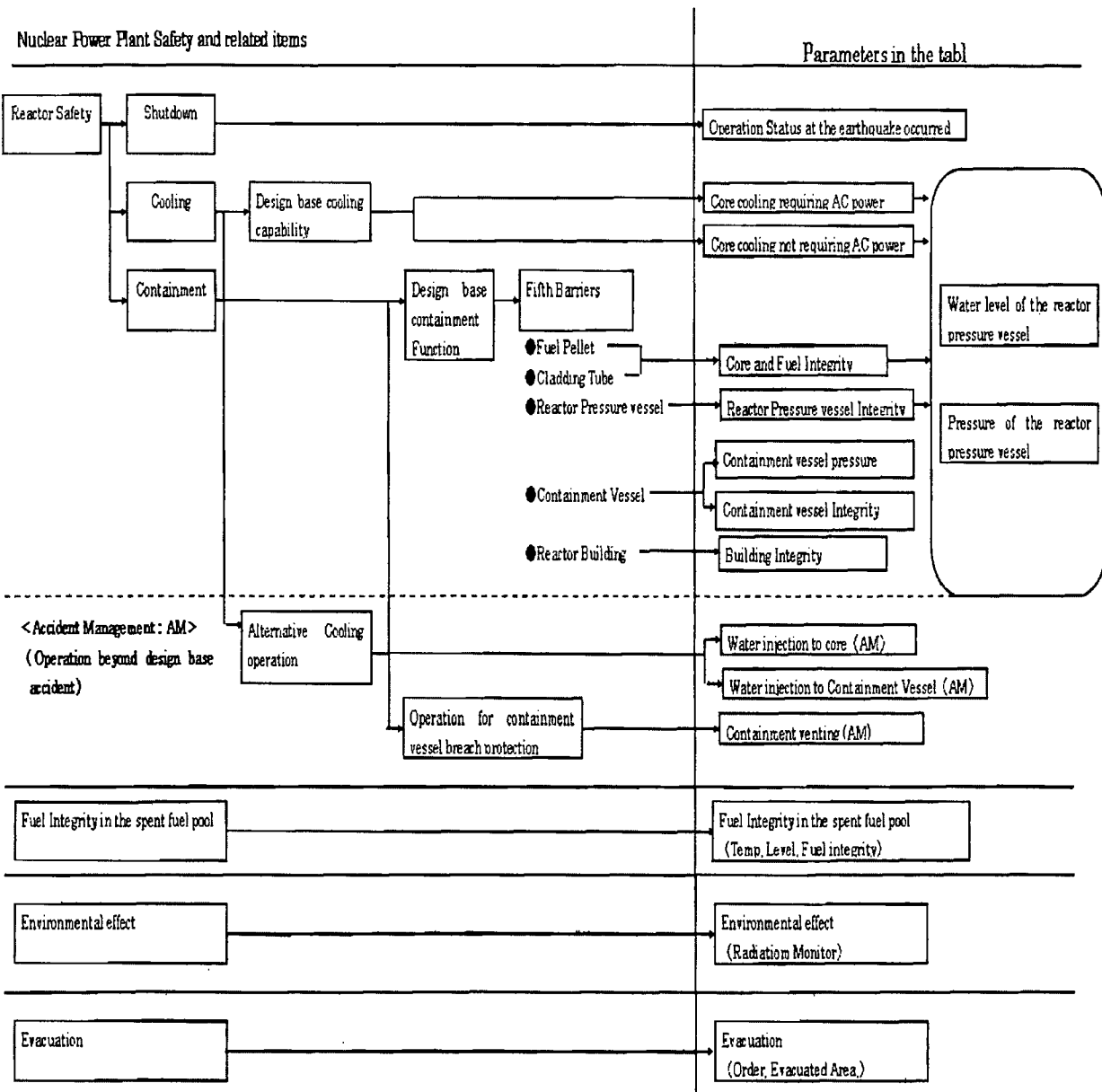
SFP: spent fuel pool

TEPCO: Tokyo Electric Power Company, Inc.

Wier
NISA
Other
dat

Parameters in the Table

JALF picks up these parameters to evaluate safety condition of the nuclear plants during this accident from the view point of the principles of nuclear power plant safety, which are "Shutdown", "Cooling" and "Containment". Then we create the chart. The following diagram is to show the correspondence relation of these parameters in the table to nuclear power plant safety.



Accidents of Fukushima Dai-ichi and Fukushima-Dai-ni Nuclear Power Stations

March 18, 2011 (13:00)

by Government Nuclear Emergency Response Headquarters

1. Latest Major Incidents and Actions

<March 16>

05:45

The fire occurred around the 3rd floor of the reactor building at Unit 4. (The fire was extinguished spontaneously.)

08:37 The white smoke like steam generated from Unit 3.
 11:14 It was estimated that the white smoke was a large amount of evaporation from the pool.
 No singular change was observed at parameters for the containment vessel (CV).
 11:30 The operators returned to the room and restarted the operation for water injection as the possibility of serious damages of CV at Unit 3 was low.
 <March 17>
 09:48 Seawater discharge (4 times) to Unit 3 by the helicopters of Self-Defence Force(SDF) (~10:00)
 19:05 Grand discharge (once) by riot police (~19:22)
 19:35 Grand discharge (5 times) by Self Defense Forces (SDF) (~20:09)

JAIF

2. Status of Nuclear Power Stations

(1) Fukushima Dai-ichi NPS

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Major Incidents	11th 15:42 Report IAW Article 10* (Loss of power)	11th 15:42 Report IAW Article 10* (Loss of power)	11th 15:42 Report IAW Article 10* (Loss of power)	14th 04:08 Water temperature in Spent Fuel Storage Pool increased at 84°C	Water temperature in SF Storage Pool is increasing	Water temperature in SF Storage Pool is
and Actions	11th 16:36 Report IAW Article 15* (Incapability of water injection by core cooling function)	11th 16:36 Report IAW Article 15* (Incapability of water injection by core cooling functions)	13th 05:10 Report IAW Article 15* (Loss of reactor cooling functions)	15th 09:38 Fire occurred on 3rd floor (extinguished)		
	12th 00:49 Report IAW Article 15* (Abnormal rise of CV pressure)	14th 13:25 Report IAW Article 15* (Loss of reactor cooling functions)	13th 08:41 Start venting	16th 05:45 Fire occurred (extinguished spontaneously)		
	12th 14:30 Start venting	14th 16:34 Seawater injection to RPV	13th 13:12 Seawater injection to RPV			
	12th 15:36 Hydrogen explosion	14th 22:50 Report IAW Article 15* (Abnormal rise of CV)	14th 07:44 Report IAW Article 15* (Abnormal rise of CV pressure)			
	12th 20:20 Seawater injection to RPV	15th 00:00 Start venting	14th 11:01 Hydrogen explosion			
		15th 06:10 Sound of explosion	15th 10:22 Radiation dose			
		Suppression Pool damaged	16th 06:40, 08:47 Radiation dose 400mSv/h			
		15th 08:25 White smoke reeked	16th 08:34, 10:00 White smoke reeked			
			17th 09:48 Water discharge by SDF helicopters			
			17th 19:05 Grand water discharge by riot police			
			17th 19:35 Grand water discharge by SDF			
Major Data	-Water level (18th 07:55)	-Water level (18th 07:55)	-Water level (18th 08:00)	-Water temperature of SF Storage Pool	-Water temperature of SF Storage Pool (18th 08:00)	-Water temperature of SF Storage Pool (18th 08:00)
	(A) -1700mm (B) down scale	-1400mm	(A) -1900mm, (B) -2300mm	Unmeasurable (since 14th 04:08)	65.9°C	63.0°C
	-Reactor pressure (18th 07:55)	-Reactor pressure (18th 07:55)	-Reactor pressure (18th 08:00)			
	(A) 0.169MPaG, (B) 0.146MPaG	(A) - 0.014MPaG, (B) - 0.029MPaG	(A) -0.005MPaG, (B) 0.009MPaG			
	-CV pressure (18th 07:55)	-CV pressure (18th 07:55)	-CV pressure (18th 08:00)			
	Unmeasurable (14th 10:30~)	0.130MPaabs	0.150MPaabs			

* The Act on Special Measures Concerning Nuclear Emergency Preparedness

(2) Fukushima Dai-ichi NPPs

All units are cold shutdown (Unit-1, 2, 4 have been recovered from Article 15 Incident)

3. State of Emergency Declaration

11th 19:03

State of nuclear emergency was declared (Fukushima Dai-ichi NPS)

12th 07:45

State of nuclear emergency was declared (Fukushima Dai-ichi NPS)

4. Evacuation Order

11th 21:23

PM direction: for the residents within 3km radius from Fukushima I to evacuate, within 10km radius from Fukushima I to stay in-house

12th 05:44

PM direction: for the residents within 10km radius from Fukushima I to evacuate

12th 17:39

PM direction: for the residents within 10km radius from Fukushima II to evacuate

12th 18:25

PM direction: for the residents within 20km radius from Fukushima I to evacuate

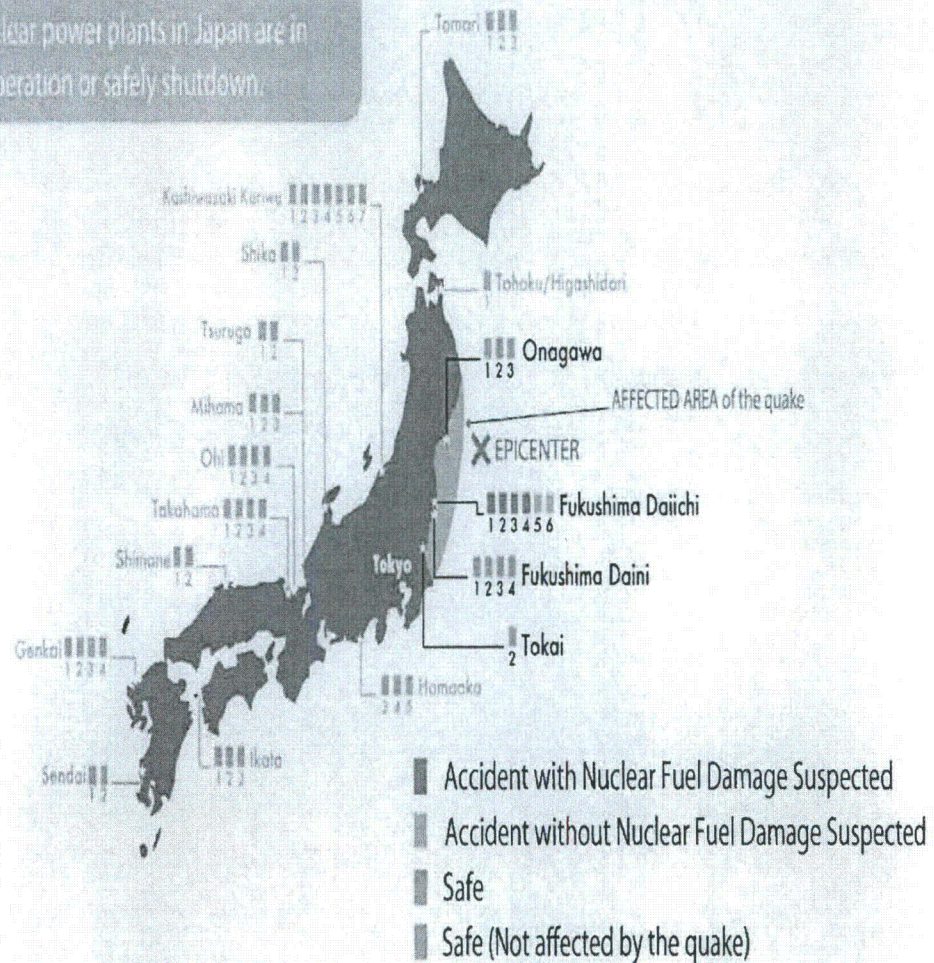
15th 11:06

PM direction: for the residents within 20-30km radius from Fukushima I to stay in-house

JAIF

Status of the Nuclear Power Plants after the Earthquake

Every efforts and measures have been taken at Fukushima Daiichi nuclear power plants. Other nuclear power plants in Japan are in normal operation or safely shutdown.



Woodruff, Gena

From: opa administrators [opa@nrc.gov]
Sent: Friday, March 18, 2011 6:27 PM
To: Woodruff, Gena
Subject: -CORRECTED-NRC Proposes to Amend Licensing, Inspection and Annual Fees Rule
Attachments: 11-051.pdf

Diaz, Jose

From: National Academies Press [NationalAcademiesPress@nas.edu]
Sent: Friday, March 18, 2011 6:02 PM
To: Diaz, Jose
Subject: Nuclear Radiation Exposure and Health

To view this email as a web page, go [here](#).

Connect with NAP

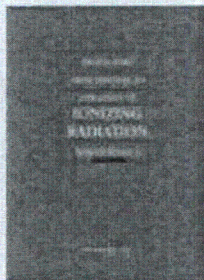


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THE NATIONAL ACADEMIES PRESS

Nuclear Radiation Exposure and Health



Health Risks from Exposure to Low Levels of Ionizing Radiation

Last Friday's earthquake and tsunami caused damage at four of the six reactors at the Japanese Fukushima Daiichi plant. This morning, Japan's Nuclear and Industrial Safety Agency raised the alert level for the plant causing increased concern among area residents and government officials.

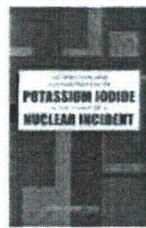
The National Academies Press has published several reports about preventive strategies to mitigate the harmful health effects of radiation exposure in events of this nature.

Learn more about the reports listed in this e-mail and other related titles in the article Harmful Health Effects of Nuclear Radiation Exposure: Resources for Prevention.

RELATED TITLES



Safety and Security of Commercial Spent Nuclear Fuel Storage



Distribution and Administration of Potassium Iodide in the Event of a Nuclear Incident



Assessment of the Scientific Information for the Radiation Exposure Screening and Education Program



Improving the Regulation and Management of Low-Activity Radioactive Wastes

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THE NATIONAL ACADEMIES
Advisers to the Nation on Science, Engineering, and Medicine

Travick, Vanette

From: McCree, Victor
Sent: Friday, March 18, 2011 7:47 PM
To: Evans, Michele; Uhle, Jennifer; Pederson, Cynthia; Mamish, Nader; Lew, David; Leeds, Eric
Cc: Sheron, Brian; Satorius, Mark; Wert, Leonard; Doane, Margaret; Grobe, Jack; Johnson, Michael
Subject: Re: ACTION NEEDED: Proposed replacement staff for team in Japan

Thanks Michelle - I just spoke to Alan Blamey. He's good to go.

Vic

This email is being sent from an NRC Blackberry device.

From: Evans, Michele
To: Uhle, Jennifer; Pederson, Cynthia; McCree, Victor; Mamish, Nader; Lew, David; Leeds, Eric
Cc: Sheron, Brian; Satorius, Mark; Wert, Leonard; Doane, Margaret; Grobe, Jack; Johnson, Michael
Sent: Fri Mar 18 19:07:19 2011
Subject: ACTION NEEDED: Proposed replacement staff for team in Japan

Please do not share this list any farther, since it has not been finalized/approved. At this point, I have provided the attached to Chuck and asked him to provide any comment by Saturday morning.

Meanwhile, I am requesting that the appropriate office management contact their staff on the list and confirm that their current medical condition supports this travel to Japan. When contacting them, it would be fine to indicate that their name is proceeding forward in the process, but it has not been finalized. Please provide the response to me as soon as practicable via email.

To help, I provided the names by office below:

RES: (b)(5)
NRR: (b)(5)
Region I: (b)(5)
Region II: (b)(5)
Region III: (b)(5)
NSIR: (b)(5)
OIP: (b)(5)

Thanks for everyone's support.

Michele

From: Evans, Michele
Sent: Friday, March 18, 2011 6:47 PM
To: Casto, Chuck; Monninger, John; Dorman, Dan
Cc: Weber, Michael; Borchardt, Bill; Virgilio, Martin; Boger, Bruce; Zimmerman, Roy; Wiggins, Jim
Subject: Proposed replacement staff for team in Japan

Chuck,

Based on the input you provided this morning regarding expertise for the next wave of staff going to Japan, we're proposing the attached team.

(b)(5)

(b)(5)

The remaining individuals would leave the USA later in the week (target date is March 24), to allow time for turnover and then enable the remaining team members to return to the USA on or around March 28.

If you want to further discuss the skill sets, the staff, the timing, or any other needs please let me know. I can be on the phone in the Ops Center to discuss with you on Saturday morning as early as 7 am Washington time. Please communicate your preference for a discussion with the ET in the Ops Center.

Thanks

Michele

Woodruff, Gena

From: Virgilio, Rosetta
Sent: Friday, March 18, 2011 10:51 PM
To: Barker, Allan; Maier, Bill; Tifft, Doug; Woodruff, Gena; Logaras, Harral; McNamara, Nancy; Trojanowski, Robert
Cc: Turtill, Richard; Ryan, Michelle
Subject: TRANSCRIPT

FYI Link to NRC's public Website for 3/17/21 **UNOFFICIAL** transcript of Chairman's portion of the House hearing:

<http://www.nrc.gov/about-nrc/organization/commission/comm-gregory-jaczko/0317nrc-transcript-jaczko.pdf>

Travick, Vanette

From: Bernhard, Rudolph
Sent: Friday, March 18, 2011 10:57 PM
To: 'Hertel, Nolan E'
Subject: RE: Japanese Accident

Nolan,

If you need some technical help with the session, I can provide some details. I am familiar with the type of plants involved, and the accident progression that probably took and is taking place. Early April will give things time to finish playing out. Call me if you have any questions.

Rudy Bernhard
USNRC, Region 2
Senior Reactor Analyst
Office 404-997-4618
Personal Cell (b)(6) (call anytime)

From: Hertel, Nolan E [<mailto:nolan.hertel@me.gatech.edu>]
Sent: Friday, March 18, 2011 5:02 PM
To: nolan.hertel@me.gatech.edu
Subject: Japanese Accident

If there is interest, I will try to set up another meeting where we had the last one to have a sort of town hall meeting on the Japanese accident. The earliest that I can get it going is probably early April.

Nolan E. Hertel, Ph.D., P.E.
Professor of NRE
Georgia Tech
404-894-3601
mobile: (b)(6)
fax: 404-894-3733

Wert, Leonard

From: Nease, Rebecca
Sent: Saturday, March 19, 2011 6:37 AM
To: McCree, Victor
Cc: Wert, Leonard
Subject: FW: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki
Attachments: Doc1.docx; bechtel detailed diagram.pdf; Japan Aid.xlsx; Chairmans March 18 Doc.docx

In case you didn't get this.

From: LIA07 Hoc
Sent: Saturday, March 19, 2011 6:25 AM
Subject: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki

Dear Colleagues,

Attached is the report summarizing Chairman Jaczko's meeting with Japanese Ambassador to the U.S. Ichiro Fujisaki, held on March 18, 2011, at 1600 hours EST. We have also included other key documents which provide additional information pertinent to the recent events. Please note this information is "official use only" and is only being shared within the federal family. Please call the Headquarters Operations Office at 301-816-5100 with questions.

International Liaison Team
U.S. Nuclear Regulatory Commission

Travick, Vanette

From: McCree, Victor
Sent: Saturday, March 19, 2011 8:07 AM
To: Virgilio, Martin
Subject: Re: Chuck Casto

Ok, got it, thanks Marty.

Vic

This email is being sent from an NRC Blackberry device.

From: Virgilio, Martin
To: McCree, Victor
Sent: Sat Mar 19 01:41:48 2011
Subject: RE: Chuck Casto

Vic

Dan is going to Japan. The plan is to have him work with Chuck, sharing the workload. It is not at all clear to me when Chuck will return. He is convinced that we cannot manage a turnover and break in the relations he has established without suffering an unacceptable setback.

We will let Dan get established and see where we go from there. Chuck is working day and night and I am concerned for his wellbeing.

Marty

From: McCree, Victor
Sent: Friday, March 18, 2011 1:34 PM
To: Virgilio, Martin
Cc: Leeds, Eric; Mamish, Nader; Wiggins, Jim
Subject: Chuck Casto

Hi Marty,

When you have time.... I heard a rumor that Dan Dorman is slated to relieve Chuck in Tokyo next week. Is this true and, if so, is Dan relieving Chuck temporarily to allow him to return to Japan later? Or should I plan for Chuck to return to his primary role back in Region II for the duration of the agency's response to the Fukushima event?

Vic

Travick, Vanette

From: McCree, Victor
Sent: Saturday, March 19, 2011 8:50 AM
To: Blamey, Alan
Subject: Fw: ACTION NEEDED: Proposed replacement staff for team in Japan

FYI

This email is being sent from an NRC Blackberry device.

----- Original Message -----

From: McCree, Victor
To: Evans, Michele
Cc: Moorman, James; Ogle, Chuck; Wert, Leonard
Sent: Sat Mar 19 08:46:36 2011
Subject: Re: ACTION NEEDED: Proposed replacement staff for team in Japan

Thanks Melanie. I'll call Alan now and alert him that you and/or the Ops Cntr will follow-up shortly with details.

We coordinated with Region I and understand that they dispatched KI to OIP yesterday. I'll make sure that Alan receives his own from Region II anyway.

Vic

This email is being sent from an NRC Blackberry device.

----- Original Message -----

From: Evans, Michele
To: McCree, Victor
Sent: Sat Mar 19 08:37:49 2011
Subject: RE: ACTION NEEDED: Proposed replacement staff for team in Japan

Vic -Perfect.

Decision has been made and I was going to call Alan directly to inform him, before the Liaison Team in the Ops center gets his name and starts calling him.

So, if you can contact him and let me know that you've done that - I would greatly appreciate. I'll be sending an email to the team members by end of the morning with some general info about what the Liaison Team will do for them (everything from setting up the medical to arranging the flights). Alan and Mike Scott will be the priority since they are travelling out Tuesday.

Also, do you still have extra KI supply or did it get sent to Region IV? If you've got it, we'd want Alan to take it with him to Japan.

-----Original Message-----

From: McCree, Victor
Sent: Saturday, March 19, 2011 8:10 AM
To: Evans, Michele
Subject: Re: ACTION NEEDED: Proposed replacement staff for team in Japan

Michele - when do you anticipate a decision being reached on the composition of the 2nd team?

Vic

This email is being sent from an NRC Blackberry device.

----- Original Message -----

From: Evans, Michele

To: Sheron, Brian; Uhle, Jennifer; Pederson, Cynthia; McCree, Victor; Mamish, Nader; Lew, David; Leeds, Eric

Cc: Satorius, Mark; Wert, Leonard; Doane, Margaret; Grobe, Jack; Johnson, Michael

Sent: Sat Mar 19 08:02:30 2011

Subject: RE: ACTION NEEDED: Proposed replacement staff for team in Japan

Thanks Brian for the email. Just got off the phone with HR. The concern involves availability of medicines, proper diet, and services in Tokyo, Japan. If you haven't contacted your employee at this point, then no need to. Instead, we are making arrangements for Dr. Cadoux to have a discussion with all the members of this team on Monday to provide the appropriate medical screening. If based on that discussion, a member decides it is not appropriate for them to travel to Japan at this time, we'll take them off the team and identify a replacement.

Michele

-----Original Message-----

From: Sheron, Brian

Sent: Friday, March 18, 2011 10:21 PM

To: Evans, Michele; Uhle, Jennifer; Pederson, Cynthia; McCree, Victor; Mamish, Nader; Lew, David; Leeds, Eric

Cc: Satorius, Mark; Wert, Leonard; Doane, Margaret; Grobe, Jack; Johnson, Michael

Subject: RE: ACTION NEEDED: Proposed replacement staff for team in Japan

Michele, not sure what you mean regarding the need to confirm if their current medical condition supports their travel to Japan. Are there some unique medical restrictions they need to know about due to conditions in Japan? Both of these individuals have no medical restrictions regarding normal foreign travel.

From: Evans, Michele

Sent: Friday, March 18, 2011 7:07 PM

To: Uhle, Jennifer; Pederson, Cynthia; McCree, Victor; Mamish, Nader; Lew, David; Leeds, Eric

Cc: Sheron, Brian; Satorius, Mark; Wert, Leonard; Doane, Margaret; Grobe, Jack; Johnson, Michael

Subject: ACTION NEEDED: Proposed replacement staff for team in Japan

Please do not share this list any farther, since it has not been finalized/approved. At this point, I have provided the attached to Chuck and asked him to provide any comment by Saturday morning.

Meanwhile, I am requesting that the appropriate office management contact their staff on the list and confirm that their current medical condition supports this travel to Japan. When contacting them, it would be fine to indicate that their name is proceeding forward in the process, but it has not been finalized. Please provide the response to me as soon as practicable via email.

To help, I provided the names by office below:

(b)(5),(b)(6)

Thanks for everyone's support.

Michele

From: Evans, Michele
Sent: Friday, March 18, 2011 6:47 PM
To: Casto, Chuck; Monninger, John; Dorman, Dan
Cc: Weber, Michael; Borchardt, Bill; Virgilio, Martin; Boger, Bruce; Zimmerman, Roy; Wiggins, Jim
Subject: Proposed replacement staff for team in Japan

Chuck,

Based on the input you provided this morning regarding expertise for the next wave of staff going to Japan, we're proposing the attached team.

All the individuals were selected with interpersonal skills in mind and are all available to travel in the required time period.

We propose that Mike Scott and Alan Blamey depart the USA on Tuesday, in order to provide time for turnover and then enable Jim Trapp and Tony Ulses to return to the USA potentially on Saturday March 26.

The remaining individuals would leave the USA later in the week (target date is March 24), to allow time for turnover and then enable the remaining team members to return to the USA on or around March 28.

If you want to further discuss the skill sets, the staff, the timing, or any other needs please let me know. I can be on the phone in the Ops Center to discuss with you on Saturday morning as early as 7 am Washington time. Please communicate your preference for a discussion with the ET in the Ops Center.

Thanks

Michele

Travick, Vanette

From: McCree, Victor
Sent: Saturday, March 19, 2011 10:55 AM
To: Croteau, Rick; Jones, William
Cc: Wert, Leonard
Subject: Re: Media Heads Up--U.S. Sen. Lindsey Graham to hold press briefing at Oconee March 22

Rick,

A couple of thoughts:

(b)(5)

(b)(5)

(b)(5)

(iv) Finally, please prepare a Daily Note for issuance on Monday morning, 3/21.

Vic

This email is being sent from an NRC Blackberry device.

----- Original Message -----

From: Bartley, Jonathan
To: Croteau, Rick; Jones, William
Cc: McCree, Victor; Wert, Leonard; Sabisch, Andrew
Sent: Sat Mar 19 09:41:51 2011
Subject: Fw: Media Heads Up--U.S. Sen. Lindsey Graham to hold press briefing at Oconee March 22

FYI. We've contacted Joey Ledford so he is aware.

(b)(5)

(b)(5). Andy will be at training. I will make sure Kevin comes back early from the test observation. Do you want me to go up Tuesday?

This email is being sent from an NRC mobile device.

----- Original Message -----

From: Sabisch, Andrew
To: Bartley, Jonathan
Cc: Ellis, Kevin; Hamman, Joyce; Ottenberg, Geoffrey
Sent: Fri Mar 18 20:58:12 2011
Subject: Media Heads Up--U.S. Sen. Lindsey Graham to hold press briefing at Oconee March 22

Jonathan,

Not sure if Roger informed you of this visit on Tuesday. Geoff will be acting in by place while I am at training in Region 1 on Monday and Tuesday. Do we plan on having Roger or Joey come to the site to support the visit? I met Senator Graham at Catawba as well as when my (b)(6) and he has a strong interest in the role of the RI at the nuclear sites in SC so it is likely he will at least spend a few few minutes

with Geoff. As I said, I am offsite in training and Kevin will be in Spartanburg for the 3HP-404 testing (unless it shifts).

(b)(5)

Let me know what your thoughts are and what the Regional involvement will / might be

Thanks

Andy

=====
Andrew T. Sabisch
U.S. Nuclear Regulatory Commission
Senior Resident Inspector
Oconee Nuclear Station
7812B Rochester Highway, Seneca, SC 29672
(O) 864-873-3001 / (C) (b)(6) / (H) (b)(6)

From: Magee, Sandra J [Sandra.Magee@duke-energy.com]
Sent: Friday, March 18, 2011 2:12 PM
To: Sabisch, Andrew; Hannah, Roger
Subject: FW: Media Heads Up--U.S. Sen. Lindsey Graham to hold press briefing at Oconee March 22

Andy, please let me know if you have any questions.

Oconee will be hosting Sen. Lindsey Graham for a plant tour and short press briefing next Tuesday, March 22. Today, the Senator's director of communications is personally calling and inviting a limited number of local broadcast and print media as well as FOX News Channel, BBC World News (they had previously asked for a tour of Oconee) and CNN. The press will be joining the Senator on a plant tour and for security reasons we are restricting the participant list to a manageable number. Additional media will be able to join in for the press briefing at the World of Energy after the tour if they desire. I expect we will be at capacity in our lobby for this event.

The Senator wishes to convey his support and confidence in the nuclear power industry. He is a Pickens County native and Oconee is happy to host him.

Agenda

Noon -Media arrive at World of Energy. Begin staggered departure to plant for security processing.

12:45 - Sen. Graham and staff arrive at World of Energy process inside security area
1 p.m. -Begin plant tour.

1:40 - Return to World of Energy for press briefing with Senator Graham and Oconee Vice President Preston Gillespie

2 p.m. - Adjourn

Sandra Magee

Community Affairs

864-873-4608

sandra.magee@duke-energy.com

www.duke-energy.com/worldofenergy

24-hour media line 800-559-3853

Travick, Vanette

From: McCree, Victor
Sent: Saturday, March 19, 2011 12:04 PM
To: R2SR_MANAGERS
Subject: Fw: Deployment to Japan
Attachments: 2nd Staff Deployment to Japan.docx

See below, FYI. I'll send an email on Monday to inform the staff about Alan Blamey's deployment to Japan.

Vic

This email is being sent from an NRC Blackberry device.

From: Evans, Michele
To: Scott, Michael; Blamey, Alan; Giessner, John; Taylor, Robert; Jackson, Todd; Miller, Marie; Ali, Syed; Sheikh, Abdul; Way, Ralph; Ramsey, Jack
Cc: Cadoux, Claude; Dempsey, Jeanne; Linnerooth, Sarah; Buchholz, Jeri; Sheron, Brian; McCree, Victor; Pederson, Cynthia; Lubinski, John; Holian, Brian; Leeds, Eric; Lew, David; Lorson, Raymond; Mamish, Nader
Sent: Sat Mar 19 11:42:03 2011
Subject: Deployment to Japan

Thank you for volunteering for deployment to Japan. This work is of highest priority for the agency and your efforts are enormously appreciated.

The plan is for Mike Scott (RES) and Alan Blamey (RII) to leave the USA on Tuesday, March 22. The remaining team members, Jack Giessner (RII), Rob Taylor (NRR), Todd Jackson (RI), Marie Miller (RI), Syed Ali (RES), Abdul Sheikh (NRR), Ralph Way (NSIR), and Jack Ramsey (OIP) will depart on or about March 24. The intent is that your stay will be two weeks or less, depending on how the situation in Japan evolves.

The Operations Center Liaison Team (LT) will be contacting you later today to handle the logistic for your trip. This includes items such as flights, passports, country clearances, health immunizations, international blackberry service, dosimetry and KI tablets.

In addition, HR has requested that I provide you the information below:

-Please contact NRC Health Services on Monday morning on 301-415-8400 to schedule an appointment with Dr. Cadoux for health screening and counseling. If at all possible, it is important that you meet with Dr. Cadoux face-to-face. However, if you are located in the Region or if you are notified and deployed in a very short time frame so that medical screening is not possible, this screening will be conducted by phone. Please be aware that medical services available in Tokyo are limited at this time. Additionally, working conditions are such that controlling diet, sleep, exercise, and routine may be impossible. All of these factors can impact your health. Please review any medical conditions that you may have with Dr. Cadoux so that he can provide you with advice and counseling on managing your medical condition while deployed.

-Before you deploy we recommend that you speak briefly with the NRC Employee Assistance Program counselor, Sarah Linnerooth. Sarah can be reached on 301-415-7113. While you are deployed, EAP services are available to both you and your family, including extended family members such as Grandparents. The telephone number for EAP service is 1-800-896-0276. More information is available on the EAP on the web at www.eapconsultants.com. To learn more about the EAP and the services provided click on the member services tab. The NRC passcode is "nuclear". Please be sure to share this information with your family.

At this point, I ask that you hold any questions that you may have until the LT contacts you directly. However, after that time, if you have any additional questions or concerns that have not been addressed, please call or email me.

Thank you.

Michele Evans
Acting Deputy OD, NSIR
Michele.evans@nrc.gov

BB: (b)(6)

Deployment of Second NRC Team to Japan as of March 19, 2011

Skill Set	Name/Office/Projected Deployment date
Executive level	Dan Dorman/NMSS/March 19
General Technical Knowledge/interpersonal skills travelling March 22	Mike Scott/RES/March 22 Alan Blamey/Region II/ March 22
General Technical Knowledge/interpersonal skills travelling March 24	Jack Giessner/Region III/March 24 Rob Taylor/NRR/March 24
Protective Measures/Dose Assessment	Todd Jackson/Region I/March 23 Marie Miller/Region I/March 24
Structural Engineering Expertise	Syed Ali/RES/March 24 Abdul Sheikh/NRR/March 24
Damage Assessment Expertise	Ralph Way/NSIR/March 24
Expertise in Infrared Images	No NRC staff identified with this expertise. We are pursuing NGA resources that could support in Japan.
International Programs Expertise	Jack Ramsey/OIP/March 24 TBD/TBD/March 24

Sabisch, Andrew

From: Sabisch, Andrew
Sent: Saturday, March 19, 2011 4:19 PM
To: RST01 Hoc
Cc: Bartley, Jonathan
Subject: Boggs Boxes from Oconee Nuclear Station

To the Reactor Safety Team:

What's this message from the licensee's supply chain group mean? What we had been hearing was that they were enroute to Japan and had left Dobbins can someone find out what is happening and let us know?

This is a big delta from what we had been hearing

Thanks

Andy

=====
Andrew T. Sabisch
U.S. Nuclear Regulatory Commission
Senior Resident Inspector
Oconee Nuclear Station
7812B Rochester Highway, Seneca, SC 29672
(O) 864-873-3001 / (C) (b)(6) / (H) (b)(6)

From: Sites, James E [James.Sites@duke-energy.com]
Sent: Saturday, March 19, 2011 4:17 PM
To: Freudenberger, Richard J; Gillespie, T P Jr; Batson, Scott L; Ray, Tom; Bohlmann, Joel E; Waldrep, Benjamin C; Pitesa, Bill; King, Christopher P; Looper, James F; Burchfield, Ed Jr; Dunton, Michael J; Davenport, B G; Repko, Regis T; Morris, Jim; Sabisch, Andrew
Cc: Fisher, Jeremy R; Hamlin, Clint; Coyle, David B; Ashe, Ken; Putnam, Steven B; Patterson, Terry L; Boggs, Scott
Subject: Re: Status of E1 priority work on replacement Boggs Boxes for ONS

I'm part of a Supply Chain team providing support to INPO's ERC. At current time the Boggs Boxes are still at INPO in Atlanta. I have requested return if not sent to Japan. I'm speaking with INPO ERC at 1600 each day! FYI.

Jim

Michel, Eric

From: Eric Michel [(b)(6)]
Sent: Saturday, March 19, 2011 10:59 PM
To: Michel, Eric
Subject: Fwd: Links to websites providing information on the accident at Fukushima Daichii NPP in Japan

----- Forwarded message -----

From: Nuclear Safety <groups-noreply@linkedin.com>
Date: Sat, Mar 19, 2011 at 4:07 PM
Subject: Links to websites providing information on the accident at Fukushima Daichii NPP in Japan
To: Eric Michel <eric96@alumni.utl.edu>

LinkedIn Groups

- Group: Nuclear Safety
- Subject: Links to websites providing information on the accident at Fukushima Daichii NPP in Japan

Dear members of the Nuclear Safety Group, here are some links where you can find information and news on the accident occurred at Fukushima Daichii NPP in Japan. They are updated daily.

- 1) JAIF (Japan Atomic Industrial Forum) website: <http://www.jaif.or.jp/english/>
- 2) TEPCO Press Releases: <http://www.tepco.co.jp/en/index-e.html>
- 3) NISA (Nuclear and Industrial Safety Agency) website: <http://www.nisa.meti.go.jp/english/>
- 4) IAEA website: <http://www.iaea.org/newscenter/news/tsunamiupdate01.html>
- 5) World Nuclear News: <http://www.world-nuclear-news.org/>
- 6) Nuclear Energy Institute (NEI) website: <http://nei.cachefly.net/newsandevents/information-on-the-japanese-earthquake-and-reactors-in-that-region/>
- 7) MEXT (Ministry of Education, Culture, Sports, Science and Technology) website: <http://www.mext.go.jp/english/> (provides data on radiological monitoring)
- 8) Japan broadcast services: NHK World live stream: <http://www3.nhk.or.jp/nhkworld/> and Kyodo News: http://english.kyodonews.jp/news/japan_nuclear_crisis/
- 9) Wikipedia pages:
http://en.wikipedia.org/wiki/Timeline_of_the_Fukushima_nuclear_accidents ;
http://en.wikipedia.org/wiki/Fukushima_I_nuclear_accidents
Posted By Madalina Tronea

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Nease, Rebecca

From: Nease, Rebecca
Sent: Sunday, March 20, 2011 9:14 AM
To: McCree, Victor
Cc: Wert, Leonard
Subject: Cmr Assist's Brfg 7:30 am Sunday

Only new info since last brfg.

Jim Wiggins briefing:

Industry Consortium: INPO appears to be taking the lead.

Bechtel piping system: 1 train still on plane in Perth - apparently, logistical hold-up. Should fly today. "From the Japanese end" we are working on getting an understanding of conditions at the site, to support installation.

U1 and 2: power lines installed - wkg on getting hooked up to units

U1 and 2: adding water via fire truck water cannons - no info on how successful this has been

U1: psr in RCS 2.75 atm (see sit rep) - looks to be increasing

U2: reports of SFP temperature decreasing have not been confirmed (sit rep says 100 degrees C)

U3: news reports of psr increasing in containment (in NKH news) have not been confirmed.

U3 reports that TEPCO wants to vent - no confirmation and no info on when, why.

U3 and 4: will start installing power lines

U5 - power restored to site - started RHR pump

We got dose info from NEI (Wiggins had an e-mail from Marty V - will try to send that out to us!)

At gate: 60 mR/hr

U3/4 boundary area: 15 mR/hr

U 5/6 boundary area: 100mR/hr

Power bldg: 20 R/hr

20km NW of site 20 mR/hr (another confirmation of NRC recommended evacuation)

Next briefing: 8pm tonight

Nease, Rebecca

From: Nease, Rebecca
Sent: Sunday, March 20, 2011 9:30 AM
To: McCree, Victor
Cc: Wert, Leonard
Subject: FW: Info from CA Briefing 20 March 2011
Attachments: March 20 one pager.doc

Although not labeled as such, this is probably what Marty V got from NEI and e-mailed to Jim Wiggins. In response to a question on dose, he read part of it to us then said he'd e-mail it to us.

From: LIA01 Hoc
Sent: Sunday, March 20, 2011 9:15 AM
To: Andersen, James; Bates, Andrew; Brenner, Eliot; Bubar, Patrice; Camper, Larry; Castleman, Patrick; Chandrathil, Prema; Cheok, Michael; Dembek, Stephen; Doane, Margaret; Dricks, Victor; Franovich, Mike; Gott, William; Haney, Catherine; Hannah, Roger; Hart, Ken; Hayden, Elizabeth; Hipschman, Thomas; Howell, Linda; Jackson, Donald; Ledford, Joey; Lewis, Robert; Mamish, Nader; Marshall, Michael; Maupin, Cardelia; McConnell, Keith; Miller, Charles; Mitlyng, Viktoria; Moore, Scott; Nease, Rebecca; Nieh, Ho; Orders, William; Powell, Amy; Ramsey, Jack; Reddick, Darani; Reis, Terrence; Riemer, Kenneth; Screnci, Diane; Sheehan, Neil; Snodderly, Michael; Sollenberger, Dennis; Sosa, Belkys; Tschiltz, Michael; Uselding, Lara; Vietti-Cook, Annette; Whitney, James; McKenney, Christopher
Subject: Info from CA Briefing 20 March 2011

Travick, Vanette

From: McCree, Victor
Sent: Sunday, March 20, 2011 7:21 PM
To: Nease, Rebecca
Cc: Wert, Leonard
Subject: RE: Cmr Assist's Brfg 7:30 am Sunday

K received all emails – thanks!

From: Nease, Rebecca
Sent: Sunday, March 20, 2011 9:14 AM
To: McCree, Victor
Cc: Wert, Leonard
Subject: Cmr Assist's Brfg 7:30 am Sunday

Only new info since last brfg.

Jim Wiggins briefing:

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U3/4 boundary area: 15 mR/hr

U 5/6 boundary area: 100mR/hr

Power blk: 20 R/hr

20km NW of site 20 mR/hr (another confirmation of NRC recommended evacuation)

Next briefing: 8pm tonight

Travick, Vanette

From: McCree, Victor
Sent: Sunday, March 20, 2011 11:35 AM
To: Nease, Rebecca
Subject: Re: Cmr Assist's Brfg 7:30 am Sunday

K got it, thx

This email is being sent from an NRC Blackberry device.

From: Nease, Rebecca
To: McCree, Victor
Cc: Wert, Leonard
Sent: Sun Mar 20 09:13:30 2011
Subject: Cmr Assist's Brfg 7:30 am Sunday

Only new info since last brfg.

Jim Wiggings briefing:

Industry Consortium: INPO appears to be taking the lead.

Bechtel piping system: 1 train still on plane in Perth - apparently, logistical hold-up. Should fly today. "From the Japanese end" we are working on getting an understanding of conditions at the site, to support installation.

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U 5/6 boundary area: 100mR/hr

Power blk: 20 R/hr

20kM NW of site 20 mR/hr (another confirmation of NRC recommended evacuation)

Next briefing: 8pm tonight

Travick, Vanette

From: McCree, Victor
Sent: Sunday, March 20, 2011 7:35 PM
To: Wert, Leonard
Cc: Croteau, Rick
Subject: RE: ACTION REQUESTED: Japanese Earthquake-related Information Notice


I agree...

From: Wert, Leonard
Sent: Thursday, March 17, 2011 5:55 PM
To: McCree, Victor
Cc: Croteau, Rick
Subject: Fw: ACTION REQUESTED: Japanese Earthquake-related Information Notice

Vic,
FYI, looks reasonable to me. Len

This email is being sent from an NRC Blackberry device.

From: Bowman, Eric
To: McDermott, Brian
Cc: LIA08 Hoc; Rosenberg, Stacey; McGinty, Tim; Burnell, Scott; Williamson, Edward; Morris, Scott; Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art; Westreich, Barry
Sent: Thu Mar 17 17:02:19 2011
Subject: ACTION REQUESTED: Japanese Earthquake-related Information Notice



Brian,

The current version of the IN is attached. We chose to use an IN for this as the fastest generic communications vehicle available in light of our desire to issue it prior to the Commission meeting on the subject scheduled for Monday.

V/R Eric

From: McDermott, Brian
Sent: Thursday, March 17, 2011 2:38 PM
To: McGinty, Tim; Burnell, Scott; Williamson, Edward; Morris, Scott
Cc: LIA08 Hoc; Rosenberg, Stacey; Bowman, Eric
Subject: RE: ACTION REQUESTED: Japanese Earthquake-related Information Notice

Tim,

We've tasked the item for review this evening. With comments due to NRR\Tim McGinty by 0700 on 3/18.

Brian

From: McGinty, Tim
Sent: Thursday, March 17, 2011 12:57 PM
To: Burnell, Scott; Williamson, Edward; McDermott, Brian; Morris, Scott
Cc: LIA08 Hoc; Rosenberg, Stacey; Bowman, Eric
Subject: FW: ACTION REQUESTED: Japanese Earthquake-related Information Notice

We are fast tracking this proposed IN. I will want the ET in the Ops Center to review it. Attached is an early draft. Feedback welcomed. Tim

From: McGinty, Tim

Sent: Thursday, March 17, 2011 12:42 PM

To: Bowman, Eric; Thomas, Eric; Correia, Richard; Mathew, Roy

Cc: Rosenberg, Stacey; Hiland, Patrick; Westreich, Barry; Boger, Bruce; Leeds, Eric; Quay, Theodore; Blount, Tom; Skeen, David

Subject: RE: ACTION REQUESTED: Japanese Earthquake-related Information Notice

My apologies. We have now been tasked to issue the IN tomorrow. Need your comments and concurrence by mid-afternoon today, COB at the latest. Tim

From: Bowman, Eric

Sent: Thursday, March 17, 2011 11:37 AM

To: Thomas, Eric; Correia, Richard; Mathew, Roy

Cc: Rosenberg, Stacey; McGinty, Tim; Hiland, Patrick; Westreich, Barry

Subject: ACTION REQUESTED: Japanese Earthquake-related Information Notice

Importance: High

All,

We plan to issue the attached Information Notice early next week on the implications of the recent Japanese Earthquake. In support of that effort, your comments and Divisional concurrence are requested by tomorrow afternoon.

Very many thanks in advance for your efforts.

V/R; R/ Eric

Eric E. Bowman

Sr. Project Manager

Generic Communications & Power Uprate Branch

Division of Policy and Rulemaking

Office of Nuclear Reactor Regulation

U.S. Nuclear Regulatory Commission

301-415-2963

Eric.Bowman@nrc.gov

Diaz, Jose

From: Nextgov.com Newsletters [nextgov@gove-media.com]
Sent: Monday, March 21, 2011 5:32 AM
To: Diaz, Jose
Subject: Nextgov Today -- March 21, 2011

MONDAY, MARCH 21, 2011

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nextgov TODAY

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- Security concerns suppress Pentagon's appetite for wireless devices
- Cyberattacks against federal networks were up 40 percent in 2010
- Military using social media to connect to terrorists
- OMB: It takes money to save money in IT operations
- Cybersecurity education initiative seeks training metrics
- Lawmaker introduces new cybersecurity bill
- National broadband plan accomplishing most of its goals, FCC says

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Bob Brewin's Take on Defense Information Technology

- Defense Restores Access to Blocked Websites
- Real Winners

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- OPM Defines IT Program Managers

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- Why business intelligence consistency ranks as a top CIO priority

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ARTICLES

- **Top court to weigh privacy rights**

BY WILLIAM MATTHEWS

Thanks to increasingly sophisticated communications technology and ever-expanding interconnected data bases, even small-town police can run detailed background checks to discover criminals during routine traffic stops.

Full story: http://www.nextgov.com/nextgov/ng_20110318_4115.php?oref=rss?zone=NGtoday

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- **Security concerns suppress Pentagon's appetite for wireless devices**

BY WILLIAM MATTHEWS

The U.S. military wants to go wireless. It wants handheld devices to replace desktop computers, it wants information available for troops "anywhere, on any device anytime," it wants employees to telework, and it wants to do this all with commercial products.

Full story: http://www.nextgov.com/nextgov/ng_20110318_3291.php?oref=rss?zone=NGtoday

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- Why business intelligence consistency ranks as a top CIO priority

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- **Cyberattacks against federal networks were up 40 percent in 2010**

BY ALIYA STERNSTEIN

The number of attacks against federal networks increased nearly 40 percent last year, while the number of incidents targeting U.S. computers overall was down roughly 1 percent for the same period, according to a new White House report to Congress on federal computer security.

Full story: http://www.nextgov.com/nextgov/ng_20110318_4179.php?oref=rss?zone=NGtoday

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- **Military using social media to connect to terrorists**

BY ALTHEA FUNG, NATIONAL JOURNAL

The United States military is using social media to infiltrate terrorist networks, The Guardian reports.

Full story: http://www.nextgov.com/nextgov/ng_20110318_6402.php?oref=rss?zone=NGtoday

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- **OMB: It takes money to save money in IT operations**

BY ALIYA STERNSTEIN

The Office of Management and Budget needs more money to facilitate face-to-face meetings with agency leaders to review faltering information technology projects so they can enforce corrective actions promised during those sessions, the federal chief information officer said on Thursday.

Full story: http://www.nextgov.com/nextgov/ng_20110317_4406.php?oref=rss?zone=NGtoday

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- **Cybersecurity education initiative seeks training metrics**

BY ALIYA STERNSTEIN

Coordinating interagency efforts to train aspiring cybersecurity specialists, federal employees and the public on data protection is a tall order for Ernest McDuffie, the lead manager for the National Initiative for Cybersecurity Education. Activities to promote safe Web surfing habits include a public awareness campaign, formal cybersecurity education programs, federal workforce training and a new Internet ID system. McDuffie is tracking agencies' progress on all this schooling.

Full story: http://www.nextgov.com/nextgov/ng_20110317_8067.php?oref=rss?zone=NGtoday

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- **Lawmaker introduces new cybersecurity bill**

BY JOSH SMITH, NATIONAL JOURNAL

Rep. Jim Langevin, D-R.I., unveiled a comprehensive cybersecurity bill Wednesday that would establish a national office to coordinate responses to Internet attacks and give the Department of Homeland Security the authority to decide which private networks can be regulated as "critical infrastructure."

Full story: http://www.nextgov.com/nextgov/ng_20110317_3407.php?oref=rss?zone=NGtoday

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- **National broadband plan accomplishing most of its goals, FCC says**

BY JOSH SMITH, NATIONAL JOURNAL

One year after the Federal Communications Commission released its National Broadband Plan, federal officials tout the past year's accomplishments while critics say the agency is moving too slowly and becoming distracted by the net neutrality debate. The truth is, both sides are right to a degree.

Full story: http://www.nextgov.com/nextgov/ng_20110317_4808.php?oref=rss?zone=NGtoday

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WHAT'S BREWIN'

Bob Brewin's Take on Defense Information Technology

- **Defense Restores Access to Blocked Websites**

BY BOB BREWIN | 3/18/11 | 5:54 P.M. ET

U.S. Cyber Command issued a one sentence statement late Friday saying it had reopened access to 13 commercial websites blocked since March 11 to conserve bandwidth for relief operations in Japan.

Read More: http://whatsbrewin.nextgov.com/2011/03/defense_restores_access_to_blocked_websites.php

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- **Real Winners**

BY BOB BREWIN | 3/18/11 | 5:10 P.M. ET

There's this guy named Charlie Sheen infesting all kind of media outlets with a message that he's a winner, though his antics make him look like a loser, especially when compared to some real and often anonymous winners:

Read More: http://whatsbrewin.nextgov.com/2011/03/real_winners.php

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TECH INSIDER

An Expert Blog on the State of Federal Technology

- **Vivek Kundra, Video Star**

BY TOM SHOOP | 3/17/11 | 2:46 P.M. ET

Last year, the Obama administration started producing a series of "White House Whiteboard" videos to

highlight administration policies and initiatives. The latest edition features none other than federal CIO Vivek Kundra, discussing the ins and outs of the Federal IT Dashboard and the administration's TechStat review sessions:

Read More: http://techinsider.nextgov.com/2011/03/vivek_kundra_video_star.php

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- How to leverage business intelligence for internal and external reporting
- Why business intelligence consistency ranks as a top CIO priority

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WIRED WORKPLACE

A Look at Issues Facing Federal IT Workers

▪ **OPM Defines IT Program Managers**

BY BRITTANY BALLENSTEDT | 3/18/11 | 12:25 P.M. ET

Program management is classified as an official career field for federal information technology positions in a new draft proposal issued by the Office of Personnel Management.

Read More: http://wiredworkplace.nextgov.com/2011/03/opm_defines_it_program_managers.php

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CYBERSECURITY REPORT

Updates on the battle to protect data and systems

▪ **See No Hack, Hear No Hack, Speak No Hack**

BY JESSICA HERRERA-FLANIGAN | 3/18/11 | 1:43 A.M. ET

So much of our nation's cybersecurity focus is on controlling information -- who can access it, use it, redistribute it, and talk about it. Experts talk about privacy and access controls, authentication and identity management. But what happens when cybersecurity efforts fail, systems are compromised and information is shared on the Internet with millions of others?

Read More:

http://cybersecurityreport.nextgov.com/2011/03/see_no_hack_hear_no_hack_speak_no_hack.php

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HEALTH IT UPDATE

The latest developments in the e-health world

- **Montana Could Snub IT Funds**

BY JOHN PULLEY | 3/18/11 | 1:40 P.M. ET

Republican lawmakers in Big Sky country are giving a big no to \$35 million in federal incentive payments for hospital electronic health records -- a move Montana's governor warns would cost more than 500 jobs statewide.

Read More: http://healthitupdate.nextgov.com/2011/03/republican_lawmakers_in_big_sky.php

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Government Executive Media Group * 600 New Hampshire Avenue, NW * Washington, DC 20037

Wert, Leonard

From: Bartley, Jonathan
Sent: Monday, March 21, 2011 7:12 AM
To: Croteau, Rick; Jones, William
Cc: McCree, Victor; Wert, Leonard; Sabisch, Andrew
Subject: FW: Nozzles from Oconee

It looks like the Oconee Boggs nozzles did not make it to Japan. They are still with INPO. HQ (and USAID?) decided the transaction should be carried out as a private company to private company transaction and INPO and TEPCO should coordinate logistics.

-----Original Message-----

From: Sabisch, Andrew
Sent: Saturday, March 19, 2011 9:36 PM
To: Bartley, Jonathan; Ellis, Kevin
Subject: Nozzles from Oconee

I received the following response from the team in HQ not quite sure what it means or how wires seemed to have been crossed but this is what I have at this time teh station is following up directly and will communicate updates with Kevin

Andy

=====

USAID RM/LC:

The following is a response to your inquiry regarding if there is still a need for the 4 nozzles to be shipped from Atlanta to Japan.

The 4 nozzles had been offered by the Oconee Nuclear Power Station, for use at TEPCO, through the Institute of Nuclear Power Operations (INPO), based in Atlanta. The NRC had been coordinating the transport of the 4 nozzles from Atlanta to Japan through US AID. Subsequently, the NRC has informed INPO that Oconee is to contact TEPCO directly and make the offer of the 4 nozzles, private company to private company. Transport logistics of the nozzles would then be between the two private companies and no longer the responsibility of USAID.

This should close both of our involvement.

Bob Kahler

Robert E. Kahler
Branch Chief, Inspection and Regulatory Improvements Branch US NRC NSIR/DPR/DDEP/IRIB USAID
NRC Liaison, Japanese Event USAID Desk: (202) 712-4384
Blackberry: (b)(6)
Personal Cell: (b)(6)

=====

Not sure exactly what this means since USAID is a governmental agency

=====

Andrew T. Sabisch

U.S. Nuclear Regulatory Commission

Senior Resident Inspector

Oconee Nuclear Station

7812B Rochester Highway, Seneca, SC 29672

(O) 864-873-3001 / (C) (b)(6) / (H) (b)(6)

Michel, Eric

From: Freeman, Scott
Sent: Monday, March 21, 2011 7:21 AM
To: Artayet, Alain; Michel, Eric; Bartleman, John; Heisserer, Jamie; Failla, David; Harmon, David; Steadham, Timothy; Blake, Jerome
Subject: Expedited FOIA Request

Last Thursday RII received a FOIA request for information related to Vogtle, VC Summer, and the incident in Japan. The specific request states:

- 1) Any correspondence, e-mail or other documents created by NRC officials since March 11, 2011, referencing the words "Vogtle" and "Japan."
- 2) Any correspondence, e-mail or other documents created by NRC officials since March 11, 2011, referencing the words "Summer" and "Japan."

I would ask each of you to search your drives for documents and e-mail related to the above and let me know today! After consulting with Jimi, I will let you know how we are going to collect them. Thanks for your help on this.

Scott

PS: I have a copy of the request on my desk if anyone is interested.

Woodruff, Gena

From: OST05 Hoc
Sent: Monday, March 21, 2011 7:29 AM
To: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Cc: Jackson, Deborah; Piccone, Josephine
Subject: FW: REVISED (again) - now v2.1 of Emergency Planning Zones
Attachments: Emergency Planning Zones v2.1.pdf
Importance: High

All,
I am forwarding **Version 2.1** of the EPZ Info/fact sheet developed by FEMA. Version 2.1 is an update to an earlier version. Version 2.1 now includes listings of relevant reference documents, POC information and DHS/FEMA branding.

This may be shared freely both internally and externally.

Thanks,
Cindy Flannery
State Liaison – Liaison Team
NRC Incident Response Center

Diaz, Jose

From: McCree, Victor
Sent: Monday, March 21, 2011 7:30 AM
To: R2MAIL; R2_RESIDENT SITES
Subject: FW: Slides for the Commission Meeting this Morning
Attachments: Staff Slides for March 21 Meeting Rev 1.pptx

See attached slides for today's Commission briefing on the NRC response to the recent nuclear events in Japan.

Vic

From: Andersen, James
Sent: Monday, March 21, 2011 6:15 AM
To: Satorius, Mark; Pederson, Cynthia; Dean, Bill; Lew, David; McCree, Victor; Collins, Elmo; Howell, Art; Wert, Leonard; Sheron, Brian; Uhle, Jennifer
Subject: Slides for the Commission Meeting this Morning

Attached are the Commission Slides for this morning's meeting. Please also forward to your staff so that copies can be made for those individuals watching at the remote locations. Thanks.

Jim A.



Wert, Leonard

From: Croteau, Rick
Sent: Monday, March 21, 2011 7:33 AM
To: Wert, Leonard; McCree, Victor
Subject: FW: TI 2515/183 final draft
Attachments: TI 2515-183, Rev 1.docx

Latest version.

From: Kobetz, Timothy
Sent: Monday, March 21, 2011 7:29 AM
To: Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael
Cc: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris
Subject: TI 2515/183 final draft

Dear George, Julio, Ray, and Mike,

Thanks to all of the regions for the quick review and comment on the TI. I tried to address the comments in the attached revision. I have not finished the comment resolution form yet, however, the following were some of the main concerns raised and how they are being addressed:

1. The NRC is not performing a truly independent inspection. Response: The TI is an independent assessment and verification of the licensees response to the event. Information gathered during this TI will be used to determine what, if any, additional inspections need to be performed and to develop specific technical guidance to perform the inspections.
2. The technical guidance in the TI lacks specificity. Response: To support the urgency of getting this TI issued, past inspection guidance was referenced as guidelines. Inspectors should feel free to contact the program office (DIRS/IRIB) with any questions regarding the implementation of the TI. More specific inspection guidance may come later as discussed in #1 above.

This morning I will once again be sending the TI to INPO for review to ensure there are no copyright infringements, etc. I sent them a copy last Friday and spoke with them. Overall INPO is supportive of our initiative.

I am working at home today and can be reached on my cell phone at (b)(6). Please don't hesitate to call with any questions. Also let me know if you would like to have a conference call today to discuss the TI as a group.

If regional senior management still has concerns you may want to contact Fred or Barry this morning (however, I'm not sure what their duty schedules at the IRC are).

Thanks again for support and quick responsiveness to this effort.

Tim

From: Kobetz, Timothy
Sent: Thursday, March 17, 2011 10:54 AM
To: Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael

Cc: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris

Subject: Action: Consider potential on-site activities in near-term

Importance: High

Dear George, Julio, Ray, and Mike,

As I discussed by phone with each of you today, due to the events in Japan, DIRS intends to issue a TI for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued on Tuesday. Here are the highlights:

- It reviews licensee verification of INPO recommendations
- The main focus of the inspection is to assess the licensee's verification, not perform an independent inspection.
- It references applicable NRC inspection guidance when possible (please add on as necessary).
- We have forwarded a copy to INPO to see if they have any objections with us following up on their recommendations.
- It recommends 40 hours per site and allows the regions to take credit for the baseline inspections if possible (I do expect a lot of feedback on the level of effort).
- The information gathered from this TI will be used to evaluate industry's readiness for a similar event and to aid in evaluating whether additional NRC regulatory actions are warranted.

Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov) and to Iris Cutler (iris.cutler@nrc.gov).

I will be out of the office this afternoon but can be reached via e-mail or my cell phone ((b)(6)) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, timothy.kobetz@nrc.gov

The is a new document so it represents a significant change.

From: Brown, Frederick

Sent: Wednesday, March 16, 2011 3:15 PM

To: Kobetz, Timothy
Subject: FW: Action: Consider potential on-site activities in near-term
Importance: High

Tim,

Your action. How quickly can we do a TI out for review?

From: Brown, Frederick
Sent: Wednesday, March 16, 2011 11:17 AM
To: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven
Cc: Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry
Subject: Action: Consider potential on-site activities in near-term
Importance: High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,
Fred

Travick, Vanette

From: McCree, Victor
Sent: Monday, March 21, 2011 7:51 AM
To: R2MAIL; R2_RESIDENT SITES
Subject: ~~FOR OFFICIAL USE ONLY~~ - 0600 EDT (March 21, 2011) USNRC Earthquake/Tsunami SitRep - ~~FOR OFFICIAL USE ONLY~~
Attachments: NRC Status Update 3.21.11--0600.pdf; Japan Earthquake March 20 one pager.docx

~~— FOR OFFICIAL USE ONLY —~~

Attached, for your information, is the 0600, March 21, 2011, NRC situation report regarding the impacts of the earthquake/tsunami event, (yellow) highlighted to show several noteworthy status items. I have also attached a 1-page status summary used during a Commissioner Assistant briefing held on yesterday, Sunday, March 20.

Both documents are considered ~~FOR OFFICIAL USE ONLY~~ and are not to be distributed outside the agency.

For your information, a second group of NRC staff will be deployed to Japan to assist in efforts associated with the ongoing event at the Fukushima Daiichi site. **Alan Blamey** (CCI/Region II) will be among the nine NRC staff in this second group. Alan is expected to depart for Japan tomorrow, Tuesday, March 22.

Vic

~~— FOR OFFICIAL USE ONLY —~~

Wert, Leonard

From: McCree, Victor
Sent: Monday, March 21, 2011 8:42 AM
To: Nease, Rebecca
Cc: Wert, Leonard
Subject: RE: Cmr Ass't Brg - 7:30 today

K got it, thx

From: Nease, Rebecca
Sent: Monday, March 21, 2011 8:18 AM
To: McCree, Victor
Cc: Wert, Leonard
Subject: Cmr Ass't Brg - 7:30 today
Importance: High

Vic,

I understand you're in a meeting – here's what I heard this morning. If you need to talk, my phone numbers are (b)(6) (cell) x4530 (office).

REACTOR STATUS

U1/2/3 containments reported to be intact
U3 – smoke reported, operators pulled back, we do not know source
U3/4 SFPs – reported now have water in them

No reports of increasing rad levels
U1/2 – TEPCO reports temp power lines available – hooking up to equipment
U3/4 – plans to have power lines available today
U5/6 - EDG supplying ac power
U5 – RHR pump cooling SFP

DOSE

No change in dose – some reduction reported after water added to U3
DOE flyovers continue to support PARs

(b)(5)

CONSORTIUM

Industry/gov't consortium meeting today at 2pm – the goals are:

1. Establish method for industry-TEPCO interaction
2. Determine the lead for the consortium
3. Lay out the logistics and funding.

MISC

Bechtel pumping system (1trn) is in the air, on the way. Another trn ready to go when requested.

Apparently the French are posting rad levels (b)(5)

Question: do these Rxs have hardened vents as US BRWs do? We do not know.

One of the Commissioner's assistants mentioned this website where we can see radiation postings by prefecture: <http://www.mext.go.jp/english/>

Tony found this link last night: <http://www.nisa.meti.go.jp/english/files/en20110321-2.pdf>

Rebecca

Wert, Leonard

From: McCree, Victor
Sent: Monday, March 21, 2011 8:46 AM
To: Croteau, Rick; Jones, William; Munday, Joel; Wert, Leonard; Gody, Tony; Cobey, Eugene
Cc: Ledford, Joey; Hannah, Roger
Subject: FW: NRC Posts Updated Seismic Questions and Answers
Attachments: 11-053.pdf

See attached. You may want to make copies of these Q&As and make them available for members of the public at the upcoming EOC and LPR meetings.

Vic

From: OST05 Hoc
Sent: Monday, March 21, 2011 7:57 AM
To: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; Piccone, Josephine; Jackson, Deborah
Subject: NRC Posts Updated Seismic Questions and Answers

NRC posted a series of seismic and tsunami Q's and A's over the weekend.

Feel free to forward to interested stakeholders.

Woodruff, Gena

From: Anderson, Joseph
Sent: Monday, March 21, 2011 8:54 AM
To: Barker, Allan; LIA04 Hoc; LIA07 Hoc; OST05 Hoc
Cc: Heck, Jared; Logaras, Harral; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Maier, Bill; Wright, Lisa (Gibney); Kahler, Robert; Thaggard, Mark
Subject: RE: Question From Ohio

At this time, the regulations are as written. These factors will be considered as part of the NRC's review of regulations in light of the Japanese reactor events, announced by the Chairman. At this time, no immediate changes to NRC EP requirements have been identified nor have we received Commission direction to this effect. If when the review is conducted and the need for immediate action was determined, then the Commission could issue an ICM.

From: Barker, Allan
Sent: Monday, March 21, 2011 8:42 AM
To: LIA04 Hoc; LIA07 Hoc; OST05 Hoc
Cc: Heck, Jared; Logaras, Harral; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Maier, Bill; Anderson, Joseph; Wright, Lisa (Gibney); Kahler, Robert
Subject: Question From Ohio

Region III received the following question from the State of Ohio:

- Do we need to plan differently for multiple sites than for single unit sites for emergency preparedness? Should we exercise with more than one site at a time--typically for multiple unit sites such as Beaver Valley (Unit 1 and Unit 2) our exercise only considers one site. This question was identified through the review of the NRC's calculations regarding multiple sites that were used to recommend the 50-mile evacuation.

Thanks.....Allan

Woodruff, Gena

Subject: VTC of the NRC Commission Meeting on the Japan Event
Location: R2Video Resource; R2-945-30p; R2-1136-10p

Start: Mon 3/21/2011 9:00 AM
End: Mon 3/21/2011 9:45 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Lee, Pamela
Required Attendees: R2ORACal Resource; R2MAIL

When: Monday, March 21, 2011 9:00 AM-9:45 AM (GMT-05:00) Eastern Time (US & Canada).
Where: R2Video Resource; R2-945-30p; R2-1136-10p

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*

On Monday, March 21, 2011, the NRC will hold a Commission Meeting to address the ongoing nuclear events at the Fukushima Nuclear Reactor site in Japan. The meeting is scheduled to convene at 9 a.m.

Interested staff is encouraged to view the proceedings via VTC at one of the following locations:

IRC – Conf. Room 1136
Conf. Room 945

Woodruff, Gena

From: OST05 Hoc
Sent: Monday, March 21, 2011 10:13 AM
To: Piccone, Josephine; Jackson, Deborah; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Subject: FW: Federal Radiological Preparedness Coordinating Committee (FRPCC)
Attachments: FRPCC Meeting Minutes 17Mar2011.docx

Forwarding meeting minutes from the Federal Radiological Preparedness Coordinating Committee (FRPCC) meeting.

DO NOT RELEASE OUTSIDE OF THE FEDERAL FAMILY.

Thanks,
Cindy Flannery
State Liaison – Liaison Team
NRC Incident Response Center

Federal Radiological Preparedness Coordinating Committee (FRPCC)

Meeting Minutes –

March 17, 2011 | 2:00 p.m. to 3:30 p.m.

The FRPCC convened a short-notice meeting to discuss responses to the Japanese nuclear power plant emergency, and information coordination among Federal agencies about actions being taken here in the United States. Each Federal agency was asked to describe its current efforts, capabilities offered, and information needs.

FEMA Technological Hazards Division (FEMA Radiological Emergency Preparedness Program):

- **Current Activities**
 - Started coordinating with FEMA Region IX and X (due to tsunami warnings).
 - Maintained liaisons: National Response Coordination Center (NRCC), Nuclear Regulatory Commission (NRC), US Agency for International Development (USAID), Incident Management Assistance Team (IMAT), ESF-5, ESF-15.
 - Answering information requests specific to offsite response organizations (ORO). planning/procedures – staying within domestic scope (issues + current activities).
 - Furnishing background information to regional offices.
 - Other issues forwarded to appropriate places as possible.
 - Radiological Emergency Preparedness Program (REPP) Exercises remain on-schedule.
 - Currently maintaining watch capability 24/7 to respond to intergovernmental informational requests.
- **Capable of providing**
 - Coordination through FRPCC.

Department of State:

- **Current Activities**
 - Responsibility is to receive information that comes under the agreement for notification in an accident – Japan forwards regular information to International Atomic Energy Agency (IAEA), which State receives and can distribute (fine to distribute).
 - Convention on provision of assistance – country can request (through IAEA) assistance, and IAEA distributes.
 - State has received a request for assistance including some drones (for air monitoring) and robot/non-manned equipment capable of use at the sight.
 - State has distributed the request – not required to assist, but required to respond/provide conditions. There is a 24/7 task force that's stood up and is busy.
- **What's needed**

- Support from DOD and other Federal agencies on distributed request.
 - EPA indicated it may have a robot (checking into that). DOE has air monitoring assets in Japan, they're being used (helicopter, plane) – there are people there who can speak for that.
- Inquired whether NRC could produce something capable of distribution to the public (consistent message)
 - Seconded by DHS Infrastructure Protection (IP)
- **Capable of providing**
- **Action Items:**
 - Department of State should provide email to FRPCC coordinators indicating who did and did not respond to the IAEA request for assistance/equipment.

DOE:

- **Current Activities**
 - DOE has one person deployed to USAID.
 - Rotary plane is going to fly again at 2000 EDT.
 - The Nuclear Incident Response Team (NIRT) is standing up up.
 - DOE is developing situational reports two times a day.
 - Interagency Modeling and Atmospheric Assessment Center (IMAAC) Activation
 - The DOE National Atmospheric Release Advisory Center (NARAC) has done modeling, but it was based on hypothetical assumptions. After the flights (which were recently completed), DOE will crunch the data and have product based on that.
 - NARAC/IMAAC; interface with NRC and others is taking place.
 - DOE is not currently doing a federal model based on everyone's data.
 - IMAAC was stood down; all products are coming from NARAC.
 - DOD is using its own Hazard Prediction and Assessment Capability (HPAC) plots, which DOE is providing to our DOD components in Japan. Defense Threat Reduction Agency (DTRA) is trying to help as well. Based on what is being seen out at the field, is there a need to make a push for one agency?
 - The White House made the call to stand it down, but still needs a single agency making products. Need to work through these issues. It has CONUS implications.
 - DOE indicated that different plots are being used, and they are incomparable.
- **What's needed**
 - DOE has no unmet needs.
- **Capable of providing**

USDA:

- **Current Activities**
 - Standing up IMAT group.
 - Staff member on the Japan Interagency Policy Committee at the White House.

- Assembling talking points for the Secretary.
- Coordinating with Advisory Team informally. It is not activated.
- Need to provide as much information as we can through consistent messaging.
- **What's needed**
 - The States are looking for information on food, agriculture, and milk.
- **Capable of providing**
 - Monitoring assets.

CDC:

- **Current Activities**
 - The Advisory Team for Environment, Food, and Health (an interagency body identified in the Nuclear/Radiological Incident Annex that coordinates advice and recommendations on environmental, food, public health and animal health issues during radiological incidents) was not requested to activate, but meeting informally.
 - Daily teleconference.
 - CDC is developing guidelines for cargo and personnel for Customs and Border Patrol (CBP). Guidelines are going through the CDC clearance process.
- **What's needed**
- **Capable of providing**
- **Action Items**
 - Provide guidelines to FRPCC (send to Rick Collins at Rick.Collins@fema.gov).
 - CDC had protocols for CBP (contact Helen Sterling 202-297-3396).

FEMA IMAT-East:

- **Current Activities**
 - FEMA has activated one IMAT, which has been given management oversight on this incident.
 - FEMA IMAT-East is supporting EPA to get portable monitors.
 - There are two Urban Search and Rescue (USAR) Teams on the ground in Japan.
 - Looking at contingency planning based on possible scenarios that might come out of this incident.
- **What's needed**
- **Capable of providing**
 - FEMA IMAT-East is positioned to give info to USAID concerning commodities and planning.
 - Supporting those agencies that are operational at this point in time.

NRC:

- **Current Activities**
 - NRC has been monitoring the situation in its Emergency Operations Center (EOC) (executive team, liaison team [Federal/State/International] FEMA REPP representation,

Public Affairs team, Nuclear Navy representation, DOE, protective measures team), which is fully staffed.

- All data is from numerous sources, and working with NARAC.
 - We are sending out status updates every 12 hours to Federal Agencies/Departments.
 - Continuing to monitor 24/7.
 - Constant contact with staff at Tokyo embassy (11 personnel).
 - Staff at USAID (deal with Department of State through them).
 - Getting info from TEPCO (Tokyo Electric Power Co.) in Japan, trying to get data and verify sources.
 - There will be a Commissioner briefing on the Japanese events on 3/21. Check NRC website for time.
- **What's needed**
 - DOE intends to provide NRC several plume models and data.
 - Relevant data from other FRPCC member agencies.
 - **Capable of providing**
 - NRC issues press releases.
 - Press releases are accessible on NRC website and are freely distributable to the public.
 - **Action Items**
 - Federal Agency personnel can email lia11.hoc@nrc.gov and cc: lia01.hoc@nrc.gov to receive status update messages.
 - DOE: has some real data and will deliver to NRC as soon as analyzed.
 - Any data other agencies have for inclusion in NRC sit reps.
 - Determination of message development for other countries (pending White House decisions).
 - Prescribed messages for guidance to the States on communications with the public.
 - **Related:** CRCPD indicated that States are looking for a consistent message. CRCPD is working with CDC and State and Tribal Health Associations (STHA), State Epidemiologists. CDC is working Frequently Asked Questions (FAQs), some States on the Pacific Coast are putting out their own information. CRCPD is also working on appropriate screening in airports.
 - CRCPD indicated State issues include receiving information from federal agencies, especially in a timely manner.
 - CRCPD would like an alert when NRC is putting out press releases. A disconnect exists between the State Liaison Officers and State officials.
 - Provide rationale behind evacuating US citizens in Japan within 50-miles of plant.

FBI:

- **Current Activities**
 - Maintaining situational awareness.
- **What's needed**

- **Capable of providing**

DOD:

- **Current Activities**
 - Providing assets through U.S. 7th Fleet, US Forces Japan, *et al.*
 - Providing humanitarian assistance and disaster relief.
 - Providing radiological assistance with DOD air sampling capabilities.
 - DTRA is providing information to DOE and NRC on plume models.
 - DOD is flying aircrafts.
 - DOD is not doing any samples for Guam and Pacific territories.
 - DOD has been asked about use of robotic assets.
 - Unable to provide equipment lists at this time because it also involves personnel to operate and maintain. Unable to turn over the equipment, but DOD is still working on what help it can provide.
 - Maintaining situational awareness.
 - DOE is providing to DTRA some plume analysis.
- **What's needed**
- **Capable of providing**
 - Air sampling.
- **Action Items**
 - DOD needs to provide status on requests for equipment to Department of State, utilizing internal processes.

EPA:

- **Current Activities**
 - Developing public website for people to access RadNet data without needing password.
 - EPA is monitoring US West Coast.
- **What's needed**
 - EPA would like to see any modeling results from other Agencies/Departments.
- **Capable of providing**
 - EPA provides additional information at EPA.gov/radiation.
- **Action Items**
 - EPA will send the link of the RadNet website to FRPCC (send to Rick Collins at Rick.Collins@fema.gov).

FDA:

- **Current Activities**
 - FDA is working on food guidelines.
 - FDA activated its EOC on March 11.
 - Engaged with Advisory Team and FRMAC.
 - Responding to inquiries on potassium iodide (KI), food, and imports/exports.
 - Addressing through public affairs.

- Regarding KI: CDC Strategic National Stockpile has only liquid formulation of KI. All tablets distributed to States through NRC.
- Providing messaging on food, based on requests from Domestic Readiness Group (DRG) and HHS. These are circulating amongst federal agencies, but not publicly.
- Has responded to request from USAID for assessment of personnel with rad/nuc expertise who may be able to respond, if needed.
- FDA has activated Food Emergency Response Network (FERN).
 - FDA is not doing sampling yet, but developing protocols.
 - Labs activated.
- Working with USDA and NOAA on common interests.
- **What's needed**
 - Send email/forwards about food to both FDA and USDA and cc: HHS (Contacts; CDR Michael Noska at Michael.noska@fda.gov; Gordon Cleveland at Gordon.s.cleveland@aphis.usda.gov; George Alexander, MD at George.alexander@hhs.gov).
 - Send FRPCC an email to who you want the request for personnel with rad/nuc expertise information to go to (send to Rick Collins at Rick.Collins@fema.gov).
 - Public Health Service Related: Identify environmental health officers to deploy (nationally/internationally) to provide monitoring assistance. Have about 30-40 environmental health officers. No formal request yet.
 - Regarding deployment of environmental health officers: Veterans Affairs Medical Emergency Radiological Response Team (MERRT) could help supply instrumentation assets.
- **Capable of providing**
 - Messaging on food.
 - Food sampling.
- **Action Items**
 - **Send FRPCC the content of the Public Health Service request (send to Rick Collins at Rick.Collins@fema.gov).**

NOAA

- **Current Activities**
 - Conducting Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) plume model runs at the request of the IAEA as part of ongoing agreement as one of the Regional Specialized Meteorological Centers. These runs are produced by the National Weather Service (NWS) upon request to the Senior Duty Meteorologist (SDM). The SDM has also produced additional runs for internal use or upon request from DOE. The NOAA Air Resources Laboratory (source of the HYSPLIT model) has also performed some experimental runs. These runs have not been made public. As with DOE, NOAA does not have a good source term but are very much in need of one.
 - The issue of consistent federal messaging also resonates within NOAA. Steps to improve communication between the agencies are welcomed.
 - NOAA/NWS has been in touch with FAA on setting criteria for the issuance of radiation Significant Meteorological Information (SIGMETS).

- A prescriptive message to the general public (probably whatever is set up for the States to disseminate) would be very helpful. NOAA is receiving requests from the general public and would like to be responsive.
- NOAA National Marine Fisheries Service has been considering effects on food safety and is in touch with FDA.

Miscellaneous

- DOT:
 - FedEx and UPS are concerned about flying into Japan, and are trying to figure out what the dose rates are from the DOD website.
 - There was a no-fly zone established.
 - If there is a need for a no-fly zone, who would issue that?

If you would like to add information into the minutes, send FRPCC an email (send to Rick Collins at Rick.Collins@fema.gov).

The next FRPCC meeting is scheduled for Tuesday, March 22. FEMA THD will distribute the time and call information through the FRPCC distribution list.

Woodruff, Gena

From: opa administrators [opa@nrc.gov]
Sent: Monday, March 21, 2011 10:39 AM
To: Woodruff, Gena
Subject: Prepared Remarks for Commission Meeting Monday, March 21, 2011
Attachments: 11-054.pdf

Seymour, Deborah

From: Seymour, Deborah
Sent: Monday, March 21, 2011 10:42 AM
To: Gloersen, William
Subject: FW: Action: Request review and comments
Attachments: Draft.docx

A quick two page read – what do you think?

From: Kotzalas, Margie
Sent: Monday, March 21, 2011 10:31 AM
To: Seymour, Deborah; Calle, Joselito; Pelchat, John; Morey, Dennis; Arroyo, Damaris; Harris, Tim; Habighorst, Peter
Subject: Action: Request review and comments

Team members,

I am happy to say that we are on track to meet our first 2 milestones by the due date of March 31. These milestones are:

1. Identification of strengths and limitations of current infrastructure
2. Preferred roles and responsibilities for NMSS, RII, and NSIR

I would like you to review the attached draft input to the report. It describes the current infrastructure, strengths and limitations, and preferred roles and responsibilities for NMSS and RII. We still need to fill in the preferred roles and responsibilities for NSIR and I have left a placeholder for Pete and Tim's input.

Since this draft contains input that I received from all of you, please review it to make sure I captured it correctly. Let me know if there is anything you think we should add, modify, or subtract.

Unfortunately, our charters have not yet been finalized nor has the steering committee been established. The events in Japan have caused a slight delay but we are staying focused on our tasks even though our "paperwork" is lagging.

Lastly, I will be on AL starting this Wednesday (March 23) through Tuesday (March 29). While I'm out, Joe will take the lead on any pressing issues. Please still send your comments on the draft input to me.

Margie

Travick, Vanette

From: McCree, Victor
Sent: Monday, March 21, 2011 12:13 PM
To: Croteau, Rick; Jones, William; Munday, Joel; Christensen, Harold; Gody, Tony; Cobey, Eugene; Wert, Leonard; Ogle, Chuck; Moorman, James; Yerokun, Jimi
Subject: FW: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki
Attachments: Doc1.docx; bechtel detailed diagram.pdf; Japan Aid.xlsx; Chairmans March 18 Doc.docx

Attached, FYI, is a report of the CHM's recent meeting with the Japanese Ambassador to the U.S., and a diagram of the "equipment" that Bechtel has provided to the Japanese.

Vic

From: OST05 Hoc
Sent: Monday, March 21, 2011 10:56 AM
To: Piccone, Josephine; Jackson, Deborah; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tift, Doug; Trojanowski, Robert; Woodruff, Gena; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark
Subject: FW: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki

This is being forwarded for your information only...

Thanks,
Cindy Flannery
State Liaison – Liaison Team
NRC Incident Response Center

From: LIA07 Hoc
Sent: Saturday, March 19, 2011 6:25 AM
Subject: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki

Dear Colleagues,

Attached is the report summarizing Chairman Jaczko's meeting with Japanese Ambassador to the U.S. Ichiro Fujisaki, held on March 18, 2011, at 1600 hours EST. We have also included other key documents which provide additional information pertinent to the recent events. Please note this information is "official use only" and is only being shared within the federal family. Please call the Headquarters Operations Office at 301-816-5100 with questions.

International Liaison Team
U.S. Nuclear Regulatory Commission

Travick, Vanette

From: McCree, Victor
Sent: Monday, March 21, 2011 1:12 PM
To: Rudisail, Steven
Subject: RE: KI

Yes...this is good.

From: Rudisail, Steven
Sent: Monday, March 21, 2011 1:10 PM
To: McCree, Victor
Subject: FW: KI

Are you ok with this?

From: Pierluissi, Dorothy
Sent: Monday, March 21, 2011 12:12 PM
To: Rudisail, Steven
Subject: KI

Steve,

I gave 2 cards (14 tabs per card) of KI to Carmen for Alan Blamey. He is scheduled to leave for Japan and wanted to have a supply of KI with him.
Alan should be returning to the office this afternoon.

Dorothy

Dorothy Pierluissi
Emergency Response Assistant
U. S. Nuclear Regulatory Commission
REGION II
245 Peachtree Center Avenue NE, , Suite 1200
Atlanta, GA 30303-1257
404-997-4470 / dorothy.pierluissi@nrc.gov

Christensen, Harold

From: McCree, Victor
Sent: Monday, March 21, 2011 4:38 PM
To: Croteau, Rick; Christensen, Harold; Munday, Joel; Jones, William; Gody, Tony; Cobey, Eugene
Cc: Wert, Leonard
Subject: FW: Comm Team Sitrep

FYI

From: Leeds, Eric
Sent: Monday, March 21, 2011 4:32 PM
To: Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Pederson, Cynthia; West, Steven; Howell, Art; Collins, Elmo
Cc: Johnson, Michael; Wiggins, Jim; Sheron, Brian; Virgilio, Martin; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Powell, Amy; Grobe, Jack; Uhle, Jennifer; Evans, Michele; Holahan, Gary
Subject: FYI: Comm Team Sitrep

FYI – see below. Lots of progress. Lots more to do.

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: Nelson, Robert
Sent: Monday, March 21, 2011 3:51 PM
To: Leeds, Eric; Boger, Bruce; Giltter, Joseph
Cc: Meighan, Sean; Nguyen, Quynh; Markley, Michael; Oesterle, Eric; Thomas, Eric
Subject: FYI: Comm Team Sitrep

1. The biggest advancement was the public version of Annie Kemmerer's Qs & As. Our team had little to do with this other than to ask for it.
2. We added numerous documents to our NRR internal website: <http://portal.nrc.gov/edo/nrr/default.aspx>. I've communicated this update to our regional POCs.
3. I prepared & forwarded to Eric a recommended communication to all NRR staff regarding that web site. Our staff is hungry for info.
4. We completed our compilation of OBE, SSE, Max Flooding Level and Protection Level for all of the plants based on info in the FSARs. This info is readily available when needed.
5. We'll begin our screening of potentially sensitive licensing actions tomorrow. I'll inform you of the results.
6. We working on some additional Qs & As but we've been impacted by the AP FOIA and did not make as much progress as we had hoped.
7. I've asked OEDO for the file of the EDO's opening remarks from today's meeting. We don't want to wait for the transcript. This is another source of info for Qs & As. No response yet.

NELSON

Michel, Eric

From: Michel, Eric
Sent: Monday, March 21, 2011 2:44 PM
To: (b)(6)
Subject: Media

<http://finance.yahoo.com/tech-ticker/james-altucher-the-media-owes-everyone-an-apology-for-over-hyping-japan-nuclear-crisis-536053.html?tickers=EWJ,%5EJPN,NWS,TWC,YHOO,CMCSA,NYT&sec=topStories&pos=9&asset=&cocode=>

Eric Michel
USNRC, Senior Construction Inspector
Region 2, Construction Inspection Branch 3
404-997-4555
eric.michel@nrc.gov

Michel, Eric

From: Michel, Eric
Sent: Monday, March 21, 2011 2:43 PM
To: (b)(6)
Subject: MIT

<http://www.businessinsider.com/japan-reactors-pose-no-risk-2011-3>

Eric Michel
USNRC, Senior Construction Inspector
Region 2, Construction Inspection Branch 3
404-997-4555
eric.michel@nrc.gov

Woodruff, Gena

From: LIA04 Hoc
Sent: Monday, March 21, 2011 5:36 PM
To: Janda, Donna; Lynch, James; Erickson, Randy; Barker, Allan; Browder, Rachel; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tift, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Subject: FSME-11-026 - Notification of Issuance of Information Notice 2011-05 "Tohoku-Taiheiyou-Okai Earthquake Effects on Japanese Nuclear Power Plants" and Availability of Seismic Questions and Answers
Attachments: FSME-11-026.pdf; FSME-11-026 Enclosure.pdf

Hello,

This email is to inform you that FSME has sent the attached letter and enclosure to State Liaison Officers and Radiation Control Program Directors that addresses events associated with the earthquake and associated tsunami in Japan. The letter provided addressees with 1) a copy of Information Notice (IN) 2011-05 "TOHOKU-TAIHEIYOU-OKI EARTHQUAKE EFFECTS ON JAPANESE NUCLEAR POWER PLANTS," and 2) NRC website link for Seismic Questions and Answers for their information and awareness.

Regards,
Stuart Easson
State Liaison – Liaison Team
Incident Response Center
301-816-5193
LIA04.HOC@nrc.gov

March 21, 2011

ALL STATE LIAISON OFFICERS
ALL RADIATION CONTROL PROGRAM DIRECTORS

NOTIFICATION OF ISSUANCE OF INFORMATION NOTICE 2011-05 "TOHOKU-TAIHEIYOU-OKI EARTHQUAKE EFFECTS ON JAPANESE NUCLEAR POWER PLANTS" AND AVAILABILITY OF SEISMIC QUESTIONS AND ANSWERS ON THE NRC WEBSITE (FSME-11-026)

Purpose: To provide recipients with a copy of Information Notice (IN) 2011-05 and NRC website link for Seismic Questions and Answers for their information and awareness.

Background: The NRC has been monitoring the response to the earthquake and associated tsunami which struck Japan on March 11, 2011.

Discussion: The NRC continues to respond as appropriate and necessary to the earthquake/tsunami. The NRC has issued IN 2011-05 to its reactor licensees, to inform addressees of effects of the Tohoku-Taiheiyoku-Oki Earthquake on nuclear power plants in Japan, and to inform addressees of measures, current as of the issuance date of the IN, which NRC has taken in view of the known consequences of the Japan earthquake/tsunami disaster. The NRC is providing a copy of IN 2011-05 to the State Liaison Officers and Radiation Control Program Directors for their information and awareness. No action or response is required.

In addition, the Nuclear Regulatory Commission has posted a series of updated seismic and tsunami questions and answers on its website. The Q&A provides basic information on earthquakes and tsunamis, details on U.S. nuclear power plant seismic design and an explanation of NRC's recent study on earthquake risk. The document is available at <http://www.nrc.gov/japan/faqs-related-to-japan.pdf>, and other NRC information related to the March 11 earthquake and tsunami is available at <http://www.nrc.gov/japan/japan-info.html>.

For questions regarding the issues and suggestions raised in IN 2011-05, please contact the individual listed as the technical contact in IN 2011-05. For questions about this FSME letter, please contact the individual listed below.

POINT OF CONTACT: Alison Rivera
TELEPHONE: 301-415-5108

INTERNET: Alison.Rivera@nrc.gov
FAX: (301) 415-5955

/RA/

Josephine M. Piccone, Director
Division of Intergovernmental Liaison
and Rulemaking
Office of Federal and State Materials
and Environmental Management Programs

Enclosure: IN 2011-05

ALL STATE LIAISON OFFICERS
ALL RADIATION CONTROL PROGRAM DIRECTORS

NOTIFICATION OF ISSUANCE OF INFORMATION NOTICE 2011-05 "TOHOKU-TAIHEIYOU-OKI EARTHQUAKE EFFECTS ON JAPANESE NUCLEAR POWER PLANTS" AND AVAILABILITY OF SEISMIC QUESTIONS AND ANSWERS ON THE NRC WEBSITE (FSME-11-026)

Purpose: To provide recipients with a copy of Information Notice (IN) 2011-05 and NRC website link for Seismic Questions and Answers for their information and awareness.

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For questions regarding the issues and suggestions raised in IN 2011-05, please contact the individual listed as the technical contact in IN 2011-05. For questions about this FSME letter, please contact the individual listed below.

POINT OF CONTACT: Alison Rivera
TELEPHONE: 301-415-5108

INTERNET: Alison.Rivera@nrc.gov
FAX: (301) 415-5955

/RA/

Josephine M. Piccone, Director
Division of Intergovernmental Liaison
and Rulemaking
Office of Federal and State Materials
and Environmental Management Programs

Enclosure: IN 2011-05

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ML110800476

Office	TA: DILR	BC: ILB/DILR	D: DILR
Name	ARivera	RTurtill	JPiccone
Date	3/21/11	3/21/11	3/21/11

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NEW REACTORS
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, DC 20555-0001

March 18, 2011

NRC INFORMATION NOTICE 2011-05: TOHOKU-TAIHEIYOU-OKI EARTHQUAKE
EFFECTS ON JAPANESE NUCLEAR POWER
PLANTS

ADDRESSEES

All holders of or applicants for operating licenses for nuclear power reactors under the provision of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

All holders of or applicants for a standard design certification, standard design approval, manufacturing license, limited work authorization, early site permits or combined license issued under 10 CFR Part 52, "Licenses, Certifications and Approvals for Nuclear Power Plants."

PURPOSE

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice (IN) to inform addressees of effects of the Tohoku-Taiheiyu-Okai Earthquake on nuclear power plants in Japan. The NRC expects that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. Suggestions contained in this IN are not NRC requirements; therefore, no specific action or written response is required.

DESCRIPTION OF CIRCUMSTANCES

The following summary of events is provided based on the best information available at this time. The situation in Japan regarding recovery efforts for the Fukushima Daiichi Nuclear Power Station continues to evolve on an hourly basis.

On March 11, 2011, the Tohoku-Taiheiyu-Okai Earthquake occurred near the east coast of Honshu, Japan. This magnitude 9.0 earthquake and the subsequent tsunami caused significant damage to at least four of the six units of the Fukushima Daiichi nuclear power station as the result of a sustained loss of both the offsite and on-site power systems. Efforts to restore power to emergency equipment have been hampered or impeded by damage to the surrounding areas due to the tsunami and earthquake.

ML110760432

Units 1 through 3, which had been operating at the time of the earthquake, scrambled automatically, inserting their neutron absorbing control rods to ensure immediate shutdown of the fission process. Following the loss of electric power to normal and emergency core cooling systems and the subsequent failure of back-up decay heat removal systems, water injection into the cores of all three reactors was compromised, and reactor water levels could not be maintained. Tokyo Electric Power Company (TEPCO), the operator of the plant, resorted to injecting sea water and boric acid into the reactor vessels of these three units, in an effort to cool the fuel and ensure the reactors remained shutdown. However, the fuel in the reactor cores became partially uncovered. Hydrogen gas built up in Units 1 and 3 as a result of exposed, overheated fuel reacting with water. Following gas venting from the primary containment to relieve pressure, hydrogen explosions occurred in both units and damaged the secondary containments. It appears that primary containments for Units 1 and 3 remain functional, but the primary containment for Unit 2 may be damaged. TEPCO cut a hole in the side of the Unit 2 secondary containment to prevent hydrogen buildup following a sustained period when there was no water injection into the core.

In addition, Units 3 and 4 have low spent fuel pool (SFP) water levels. Efforts continue to supply seawater to the SFPs for Units 1 through 4 using various methods. At this time, the integrity of the SFPs for Units 3 and 4 is unknown.

Fukushima Daiichi Units 4 through 6 were shutdown for refueling outages at the time of the earthquake. The fuel assemblies for Unit 4 had been offloaded from the reactor core to the SFP. The SFPs for Units 5 and 6 appear to be intact, but the temperature of the pool water appears to be increasing. Emergency power is available to provide cooling water flow through the SFPs for Units 5 and 6.

The Japanese Government ordered an evacuation out to 20 km for the area surrounding Fukushima Daiichi. Residents out to 30 km were ordered to shelter in place.

The damage to Fukushima Daiichi nuclear power station appears to have been caused by initiating events outside of the design basis for the facilities.

BACKGROUND

10 CFR Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion (GDC) 2, "Design Bases for Protection against Natural Phenomena," or similar appropriate requirements in the licensing basis for a reactor facility, requires that structures, systems, and components (SSCs) important to safety be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions. The design bases for these SSCs reflect: (1) appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated, (2) appropriate combinations of the effects of normal and accident conditions with the effects of the natural phenomena, and (3) the importance of the safety functions to be performed.

As a result of the terrorist events of September 11, 2001, the NRC issued EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures" (the ICM Order) dated February 25, 2002. The ICM Order, which is designated as Safeguards Information (SGI), modified then-operating licenses for commercial power reactor facilities to require compliance with specified interim safeguards and security compensatory measures. Section B.5.b of the ICM Order requires licensees to adopt mitigation strategies using readily available resources to maintain or restore core cooling, containment, and SFP cooling capabilities to cope with the loss of large areas of the facility due to large fires and explosions from any cause, including beyond-design-basis aircraft impacts.

By letter, dated February 25, 2005, the NRC staff provided guidance for implementing Section B.5.b of the ICM Order. This guidance, designated as SGI, included best practices for mitigating losses of large areas of the plant and measures to mitigate fuel damage and minimize releases. Following issuance of the B.5.b Phase 1 Guidance, the NRC staff conducted inspections at operating reactor sites using Temporary Instruction (TI) 2515/164 (SGI) and subsequently TI 2515/168 (SGI) to ensure compliance with Section B.5.b of the ICM Order.

In December 2006, the Nuclear Energy Institute (NEI) issued NEI 06-12, Revision 2, "B.5.b Phase 2 & 3 Submittal Guideline." NEI 06-12 is designated for Official Use Only – Security Related Information (OUO-SRI). The NRC endorsed NEI 06-12, Revision 2, by letter dated December 22, 2006, also designated OUO-SRI, as an acceptable means for developing and implementing the mitigation strategies requirement in Section B.5.b of the ICM Order. NEI 06-12, Revision 2, provides guidance for implementing a set of strategies intended to maintain or restore core cooling, containment, and SFP cooling capabilities under the circumstances associated with the loss of a large area of the plant due to explosions or fire. NEI 06-12 provides guidance in the following areas:

- Adding make-up water to the SFP,
- Spraying water on the spent fuel,
- Enhanced initial command and control activities for challenges to core cooling and containment, and
- Enhanced response strategies for challenges to core cooling and containment.

The specific strategies covered in NEI 06-12, Revision 2, were developed based on the results of assessments conducted at currently licensed power reactor facilities for the purpose of enhancing plant specific mitigation capability for damage conditions caused by a large explosion or fire. These assessments identified a wide spectrum of potential plant specific strategies. NEI 06-12, Revision 2, specifies one set of strategies applicable to all pressurized-water reactors and another set applicable to all boiling-water reactors. Both sets are derived from the results of the plant specific assessments.

The B.5.b Phase 1 Guidance and NEI 06-12, Revision 2, were used by each licensee in preparing information submitted to the NRC that describes a plant specific approach to implementing mitigating strategies and supports each plant specific license condition. The NRC staff has completed its review of the information submitted by each licensee, as well as

information obtained during prior NRC inspections, and has issued an OUO-SRI safety evaluation (SE) that documents the bases for its approval of the license condition for each facility. The SE issued for each licensee includes regulatory guidance in Section 3.0 of Appendix A, "Phase 1 Assessment," that recites the generic B.5.b Phase 1 Guidance of Reference 3, as clarified in TI 2515/168, in a form that is designated OUO-SRI rather than SGI.

By publishing new requirements in the *Federal Register* dated March 27, 2009 (74 FR 13926), the NRC amended 10 CFR Part 50, 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," and 10 CFR Part 73, "Physical Protection of Plants and Materials." This rulemaking added paragraph (i) to 10 CFR 50.34, "Contents of Applications; Technical Information," and paragraph (d) to 10 CFR 52.80 "Contents of Applications; Additional Technical Information," to require submittal of a "description and plans for implementation of the guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with the loss of large areas of the plant due to explosions or fire as required by § 50.54(hh)(2) of this chapter." This rulemaking also added 10 CFR 50.54(hh)(2) to impose the same mitigating strategies requirements on all reactor applicants and licensees as those imposed by the ICM Order and associated license conditions. The Statement of Considerations for this rulemaking specifically noted that the requirements in 10 CFR 50.54(hh) are intended to address certain events that are the cause of large fires and explosions that affect a substantial portion of the nuclear power plant and are not limited or directly linked to an aircraft impact. In addition, the rule contemplates that the initiating event for such large fires and explosions could be any number of beyond-design basis events. Such events include natural phenomena such as those described in GDC 2 (i.e., earthquakes, tornadoes, floods, tsunamis, and seiches), without regard to the GDC 2 provisions governing the severity of natural phenomena.

NRC regulations at 10 CFR 50.63, "Loss of All Alternating Current Power," require that light-water-cooled nuclear power plants be capable of withstanding for a specified duration and recovering from a station blackout.

DISCUSSION

The nuclear power industry has taken the actions listed below at each licensed reactor site. Additional information is available in the NEI Fact Sheet, "Industry Taking Action to Ensure Continued Safety at U.S. Nuclear Energy Plants," dated March 16, 2011, available at www.nei.org.

1. verification of the capability to mitigate conditions that result from severe adverse events, including the loss of significant operational and safety systems due to natural events, fires, aircraft impact and explosions
2. verification of the capability to mitigate a total loss of electric power to a nuclear power plant
3. verification of the capability to mitigate flooding and the impact of floods on systems inside and outside the plant

4. identification of the potential for loss of equipment functions during seismic events appropriate for the site and the development of mitigating strategies to address potential vulnerabilities

NRC assessment of the implications of beyond design-basis natural phenomena is continuing as more information becomes available. The NRC staff is currently developing a TI to guide staff in performing independent assessments of nuclear power plant readiness to address beyond design-basis natural phenomena under the Reactor Oversight Process. The NRC is considering additional generic communications and additional action including requesting operating plants to provide specific information relating to their facilities to enable the NRC staff to complete a regulatory assessment of beyond design basis phenomena.

PAPERWORK REDUCTION ACT STATEMENT

This Information Notice does not contain any information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

CONTACTS

This information notice requires no specific action or written response. Please direct any questions about this matter to the technical contact listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

/RA by MShuaibi/

/RA/

Laura A. Dudes, Director
Division of Construction Inspection,
and Operational Programs
Office of New Reactors

Timothy J. McGinty, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contact: Eric E. Bowman, NRR
301-415-2963
e-mail: Eric.Bowman@nrc.gov

Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

4. identification of the potential for loss of equipment functions during seismic events appropriate for the site and the development of mitigating strategies to address potential vulnerabilities

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/RA by MShuaibi/

/RA/

Laura A. Dudes, Director
Division of Construction Inspection,
and Operational Programs
Office of New Reactors

Timothy J. McGinty, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contact: Eric E. Bowman, NRR
301-415-2963
e-mail: Eric.Bowman@nrc.gov

Note: NRC generic communications may be found on the NRC public Web site,
<http://www.nrc.gov>, under Electronic Reading Room/Document Collections.
ADAMS Accession Number: ML110760432 * by e-mail

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DATE	03/18/2011	03/17/2011	03/17/2011	03/18/2011	03/18/2011

OFFICIAL RECORD COPY

Woodruff, Gena

From: Carol Ashley [carol.ashley@nrc.gov]
Sent: Monday, March 21, 2011 6:10 PM
To: Woodruff, Gena
Subject: FSME-11-026 – Notification of Issuance of Information Notice 2011-05 "Tohoku-Taiheiyou-Oki Earthquake Effects on Japanese Nuclear Power Plants" and Availability of Seismic Questions and Answers on the
Attachments: FSME-11-026.pdf; FSME-11-026 Enclosure.pdf

The subject line letter, FSME-11-026 (with its enclosures) is contained in the attached electronic file, and can be found at the FSME website: <http://nrc-stp.oim.gov/>.

Thank you.

Diaz, Jose

From: NRC Announcement [nrc.announcement@nrc.gov]
Sent: Monday, March 21, 2011 10:30 PM
To: NRC Announcement
Subject: Daily: 1 New Item from Monday, March 21, 2011

NRC Daily Announcements



Monday March 21, 2011 -- Regional Edition

◇ [Event: NSPD Presentation Postponed](#)

Event: NSPD Presentation Postponed

The Office of Federal and State Materials and Environmental Management Programs (FSME) is postponing the Nuclear Safety Professional Development Program (NSPDP) Brown Bag Lunch & Meet and Greet scheduled for Monday, April 4, 2011, from 11:30 a.m. to 2:00 p.m. (Eastern Time), in the TWFN auditorium. Many FSME Managers have been assisting in monitoring the ongoing situation at the Fukushima Nuclear Reactor site in Japan, and will not be available for this presentation. You will be notified when a new date has been selected.

[TOP](#)

(2011-03-21 00:00:00.0)

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[Frequently Asked Questions About the NRC Daily Announcements Email](#)

Travick, Vanette

From: McCree, Victor
Sent: Tuesday, March 22, 2011 8:07 AM
To: Leeds, Eric
Subject: RE: Japanese Event Response and Available Resources

Got it, thanks.

From: Leeds, Eric
Sent: Tuesday, March 22, 2011 7:49 AM
To: Sheron, Brian; Wiggins, Jim; Johnson, Michael; Haney, Catherine; Miller, Charles; Boyce, Thomas (OIS); Stewart, Sharon; Cohen, Miriam; Howell, Art; Pederson, Cynthia; McCree, Victor; Wert, Leonard; Dean, Bill; Lew, David; West, Steven; Collins, Elmo
Cc: Ash, Darren; Weber, Michael; Virgilio, Martin; Borchardt, Bill
Subject: FYI: Japanese Event Response and Available Resources

Please see message below. Feel free to share with your staff that are interested.

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: Schwarz, Sherry **On Behalf Of** Leeds, Eric
Sent: Monday, March 21, 2011 6:03 PM
To: NRR Distribution
Subject: Japanese Event Response and Available Resources

I want to echo the Commission and Bill Borchardt's words of appreciation and admiration spoken of the staff during the Commission Meeting this morning. NRR has provided tremendous support over the last week, and we will continue our efforts in the weeks, months, and years to come.

In our continued efforts to assist with responding and centralizing information related to events in Japan, we've added a new feature to the homepage of the NRR internal SharePoint site, "[Japan Event Information](#)." All of the information under this title has been publicly released or has been approved to be used publicly in our responses to related questions that might arise. Included in the list is a link to the NRC public web site, "[NRC Actions on Japan's Emergency](#)," where you may find information related to NRC actions, including news releases, NRC Blog posts, Frequently Asked Questions (FAQs), and other related information and sources. Please be sure to check these resources frequently, as information is being updated daily.

In addition, I've assigned Bob Nelson, Deputy Director, Division of Operating Reactor Licensing (DORL), as the NRR Coordinator for External Communications related to NRR's response to the recent events in Japan. Assisting Nelson will be Sean Meighan and Quynh Nguyen from the NRR front office, Eric Thomas from Division of Inspection and Regional Support, Eric Oesterle from the Office of New Reactors and a communications "tiger team" formulated in DORL headed by Mike Markley. Harold Chernoff will also provide assistance as needed. Nelson and his team will be responsible for coordinating the development and review of related Qs & As and coordinating the response to related controlled correspondence tasked to NRR, including related 2.206 petitions.

Please forward all of your requests for support in this area, to [Nelson](#), 301-415-1453.

Thank you all for your continued support!

- NRR SharePoint Site: <http://portal.nrc.gov/edo/nrr/default.aspx>
- NRC Public Website: NRC Actions on Japan's Emergency: <http://www.nrc.gov/japan/japan-info.html>

From: [Reece, James](#)
To: [Sanders, Carleen](#)
Subject: Fw: TI
Date: Tuesday, March 22, 2011 8:08:41 AM

FYI...

This email is being sent from an NRC Blackberry device.

From: Croteau, Rick
To: R2DRP_ALL
Sent: Tue Mar 22 08:06:28 2011
Subject: TI

FYI, you may have seen the following:

The [New York Times](#) (3/22, A8, Wald, 1.01M) reports NRC's Executive Director for Operations R. William Borchardt "said Monday that the nuclear crisis in Japan did not warrant any immediate changes at American nuclear plants," though he said the resident inspectors "at each site have been told to double-check that emergency equipment and precautions mandated years ago were still in place, including temporary hoses and fittings and other last-ditch backup equipment." In a briefing to the Commission, Borchardt said plant RIs were asked to ensure that plant operators knew where the equipment and materials were, and "make sure they haven't fallen into disuse because they haven't been used."

NRR has been working with the regions to issue a TI to address this and it should be out shortly with completion by June 30, 2011.

More to come.

Thanks,

Rick

Travick, Vanette

From: McCree, Victor
Sent: Tuesday, March 22, 2011 8:10 AM
To: Virgilio, Martin
Subject: RE: REPLY: Data on retirees and rehired annuitants

Marty – I'd be happy to participate in this effort.

Vic

From: Virgilio, Martin
Sent: Tuesday, March 22, 2011 4:07 AM
To: Borchardt, Bill; Weber, Michael; Ash, Darren
Cc: Leeds, Eric; Johnson, Michael; Wiggins, Jim; Muesle, Mary
Subject: REPLY: Data on retirees and rehired annuitants

Bill

For what it's worth, I have reviewed the Chairman's COM on NRC Actions Following the Events In Japan and believe it includes an appropriate approach.

The time line is somewhere between challenging and unrealistic in view of the talent we have taken from the line and applied to support to responding to the event, which includes the ops center, site team and external communications; while at the same time implementing our licensing and inspection programs.

I believe there are only a few folk on the list of the retired that are available and have the capacity to help us meet the short term expectations. Therefore, I suggest that as a first step we identify the talent/skills needed, and determine what work we can defer to support staffing this effort (like we did to support establishing 2 teams for NFPA 805 at the same level of detail).

I believe we would benefit from a quickly convened meeting of the DEDOs, Program Office Directors and one or more RAs to define the short term and long term work activities, required skills, work that can be shed, priorities and organizational structure for accomplishing the work.

Marty

From: Johns, Nancy
Sent: Monday, March 21, 2011 3:10 PM
To: Cohen, Miriam; Borchardt, Bill
Cc: Buchholz, Jeri; Shay, Jason; Cain, Brendan; Tracy, Glenn
Subject: Data on retirees and rehired annuitants

Bill,

Attached are lists of:

1. Current rehired annuitants working for NRC. This includes the few working with reduced salaries as well as those under pension offset waiver
2. NRC retirements from 2009 to 2011

3. The partially complete 2nd quarter report of rehired annuitants on pension offset waiver. It does not include those working for reduced salaries and may have a few people whose appointments ended after the beginning of the fiscal year but offers a little information about their current duties and type of appointment.

As NRC identifies people needed, or whose duties need to be expanded, we will be happy to work with the FEPCA Panel on preparing and seeking expedited approval of requests. Please let us know if there is additional or different information that would be helpful. Many thanks to Brendan for preparing the first two lists!!

Nancy
301-492-2235

From: Cohen, Miriam
Sent: Monday, March 21, 2011 2:06 PM
To: Borchardt, Bill
Cc: Buchholz, Jeri; Johns, Nancy; Shay, Jason; Cain, Brendan
Subject: Data coming your way

Hi Bill. As a follow up to our conversation, you will receive a list later today that includes all NRC retirees for the past two years (broken down by office). You will also get a list of current rehired annuitants and where they are deployed in the agency.

Miriam

Startz, Paul

From: Kimberly Gibson [nancy@ewi.ccsend.com] on behalf of Kimberly Gibson [events@ewi.org]
Sent: Tuesday, March 22, 2011 8:33 AM
To: Startz, Paul
Subject: Final Reminder: A Conference Call & Webinar About the Japanese Fukushima Daiichi Nuclear Power Plant

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Don't forget to tune in this afternoon!!

The Facts About the Japanese Fukushima Daiichi Nuclear Power Plant: A Conference Call & Webinar Provided by EWI Energy Center

Today -- Tuesday, March 22nd 2011 at 2:00 pm - 3:00 pm EST

The recent events in Japan have heightened public concern over the safety and feasibility of using nuclear power. In response, *EWI Energy Center* has organized a conference call and webinar that will give you access to experts from the nuclear industry. You will learn about the chain of events, without sensationalism or hypotheses, regarding what has transpired in Japan over these past weeks. You will hear directly from the experts* and will have an opportunity to get your questions answered.

You can join the discussion in two ways:

- Via teleconference by dialing **614.384.5247** and using pin code: **029468#**
- Via the web by using the following link:
<http://InstantTeleseminar.com/?eventID=18477552> -- *please note: the web link is the only way you are able to ask our panel questions*

The call and webinar will start at 2:00 pm EST today (we have received a lot of interest in this event and space is limited, so please tune in a few minutes early).

For more information, a link to our **fact sheet** can be found on the bottom of the following page --
<http://nuclearfabrication.org/facts-about-fukushima/>.

***Our panel of industry experts include:**

David Blee - U.S. Nuclear Infrastructure Council
Lake Barrett - Former Deputy Director, Office of Radioactive Waste Management
Edward Davis - Former President, American Nuclear Energy Council
Dan Yurman - American Nuclear Society
Nate Ames - Director, Nuclear Fabrication Consortium, Operated by EWI

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Kirby, Janice

From: Sreenivas, V
Sent: Tuesday, March 22, 2011 8:42 AM
To: NMSS Distribution
Subject: FW: Japanese Event Response and Available Resources

FYI, if interested

V. Sreenivas, Licensing PM
DORL/NRR on Detail
with HLWRS/NMSS

From: Schwarz, Sherry On Behalf Of Leeds, Eric
Sent: Monday, March 21, 2011 6:03 PM
To: NRR Distribution
Subject: Japanese Event Response and Available Resources

I want to echo the Commission and Bill Borchardt's words of appreciation and admiration spoken of the staff during the Commission Meeting this morning. NRR has provided tremendous support over the last week, and we will continue our efforts in the weeks, months, and years to come.

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Please forward all of your requests for support in this area, to [Nelson](#), 301-415-1453.

Thank you all for your continued support!

Eric

- NRR SharePoint Site: <http://portal.nrc.gov/edo/nrr/default.aspx>
- NRC Public Website: NRC Actions on Japan's Emergency: <http://www.nrc.gov/japan/japan-info.html>

Nease, Rebecca

From: Nease, Rebecca
Sent: Tuesday, March 22, 2011 9:05 PM
To: McCree, Victor
Cc: Wert, Leonard
Subject: Cmr Assist's Brfg 8pm Mar 22, 2011

Jim Wiggins:

Not much change in reactor status in all units.

U1/2/3 power to load center

U1 MCR has lights

U4 power to load center – SFP reported to be filled – some water, but cannot confirm fill

U5/6 power established, however U6 EDG still running

AMS grounded last 2 days – we do not know if they are flying tonight

New Technical Issue involving continued saltwater injection

Calcs by Bettis indicate caking up of RPV with salt

TEPCO asking for ideas

Bechtel piping system

Apparently a 3rd shipment is needed to get the 1st train working

Highlights need for logistics expertise

Consortium ready to stand up

Secure VCT - with White House Nat'l Sec staff and other Feds today

USAID gave kudos to NRC/DOE/Nav Rxs for assistance to ambassador and Japanese

Looking for an agency to take the lead – strong coordination role for gov't and consortium

Exit Criteria: used same as we would use in US for re-entry

Sources of release are controlled

Must be based on actual field data

1st yr dose 2R

2nd yr dose .5R

50 yr dose 50R

White House interested in a different re-entry criteria - criteria for allowing brief visits to retrieve belongings

Trying to understand DOD/Dept of State actions/recommendations for staff - what are they based on

There will be a meeting tomorrow

Voluntary departure

Ki issued, but told not to use until notified

"trip-wire levels" for taking Ki and for mandatory evacuation

If you have questions my phone numbers are:

(b)(6)

(home) and

(b)(6)

(cell)

There has been no specific information handed over to TEPCO regarding the specific tasks, equipment or people to implement immediate actions. The following general topics have been discussed:

Tasks

Urgently place water on spent fuel pools in the damaged Fukushima Daiichi Units 1, 2, 3, 4 with all available equipment

Establish temporary cooling system for spraying water on Units 1, 2, 3, and 4

Continue to closely monitor and add water to spent fuel pools in Fukushima Daiichi Units 5 & 6

Establish more permanent means of temporary cooling to the reactor cores on Units 1, 2, 3

Equipment

All equipment available to the Government of Japan should be used to implement immediate actions to cool the spent fuel pools on Units 1, 2, 3, 4

Equipment list and drawing for "Bechtel" four train system should be supplied.

People

Establish teams to implement multiple cooling water actions at the same time.

- Several hundred people would likely be required to implement spent fuel pool cooling tasks and manage the activities.
- Health Physics support

Covert, Nicole

From: NEI SmartBrief [nei@smartbrief.com]
Sent: Tuesday, March 22, 2011 10:08 AM
To: Covert, Nicole
Subject: March 22, 2011 - NRC: Fukushima plant nears stabilization

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MARCH 22, 2011

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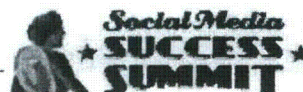


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Crisis in Japan

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NRC: Fukushima plant nears stabilization

The reactor crisis in Japan is "on the verge of stabilizing," said Bill Borchardt, the Nuclear Regulatory Commission's executive director for operations. "The fact that offsite power is close to being available for use by plant equipment is the first optimistic sign that things could be turning around," Borchardt said. Water is also streaming to cool the radioactive rods at the Fukushima Daiichi plant, he added. [ABC News](#) (3/21), [Bloomberg](#) (3/21) Share: [in](#) [f](#) [t](#) [E-MAIL](#)

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NRC: Japan's nuclear crisis won't spur immediate reforms




Japan's nuclear crisis won't lead to abrupt reforms at U.S. nuclear plants, said Bill Borchardt, the Nuclear Regulatory Commission's executive director for operations. The NRC has ordered its inspectors to ensure that emergency precautions are followed at each nuclear plant, Borchardt said. "Every single day, we assess whether or not there is some additional regulatory action that needs to be taken immediately in order to address the information we have to date," he added. [The New York Times](#) (free registration) (3/21) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

Repairs delay stabilization efforts for Fukushima plant

Key machinery in one of the reactors at the Fukushima Daiichi nuclear plant needs repairs, which is expected to delay efforts to stabilize the stricken facility. Workers will need two or three days to finish repairs, according to government officials. Late Monday, workers finished connecting power cables to all six reactor buildings. [The New York Times](#) (free registration) (3/21) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

NRC gears up for safety reviews of U.S. nuclear facilities

The Nuclear Regulatory Commission will perform short- and long-term regulatory reviews of U.S. nuclear plants. The shorter study will concentrate on "obvious" changes in procedure, while the longer one will require the participation of other federal agencies, said Bill Borchardt, the

NRC's executive director for operations. [The Politico](#) (Washington, D.C.) (3/21), [FuelFix.com/The Associated Press](#) (3/21) Share:    [E-MAIL](#) [RELATED STORIES](#)






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News Roundup

Gov. McDonnell: Virginia should proceed with new nuclear projects




Virginia shouldn't end plans to develop new reactors because of the nuclear crisis in Japan, Gov. Bob McDonnell said. "I believe it would be most unwise to let this unprecedented tragedy lead to the retraction or abandonment of the American nuclear energy industry," McDonnell said. The state obtains one-third of its electricity supply from its two nuclear plants, which "have multiple redundant systems to provide backup electrical power," he added. [Virginia Business](#) (3/21) Share:    [E-MAIL](#) [RELATED STORIES](#)

Indian Point plant needs to be re-examined, expert says




Entergy's Indian Point nuclear plant needs to be reassessed because it is located near New York City, said Edwin Lyman of the Union of Concerned Scientists. Indian Point is one of "a handful of plants in the U.S. with extremely high population densities within 50 miles, and we've always said those should get additional regulatory attention," Lyman said. Nuclear Regulatory Commission and New York state officials will meet today about the potential effects of an earthquake on the facility, Gov. Andrew Cuomo said. [Bloomberg](#) (3/21) Share:    [E-MAIL](#)

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Calif. utilities are urged to delay license-renewal bids

California's utilities should postpone license-renewal efforts until they finish 3D seismic studies, according to some state lawmakers. Pacific Gas and Electric wants to extend the operating licenses of its Diablo Canyon reactors past their expiration dates of 2024 and 2025, respectively. "I would ask sincerely that PG&E suspend or withdraw that application" until the studies are completed, said state Sen. Sam Blakeslee. [National Public Radio/The Associated Press](#) (3/22) Share:    [E-MAIL](#) [RELATED STORIES](#)

NRG, Toshiba to slow nuclear-expansion project in Texas

NRG Energy and Toshiba will slow the development of new reactors in Texas pending the Nuclear Regulatory Commission's planned review of U.S. nuclear plants. "As we unreservedly support our government's proposed nuclear safety review, the prudent thing for us to do is to await the outcome of that review before committing more of our own or our partners' capital," said David Crane, president and CEO of NRG. [The Wall Street Journal/Dow Jones Newswires](#) (3/21) Share:    [E-MAIL](#) [RELATED STORIES](#)

OUC eyes share of Santee Cooper's S.C. nuclear project

The Orlando Utilities Commission in Florida is seeking to acquire a portion of Santee Cooper's interest in two planned reactors at the V.C. Summer Nuclear Generating Station in South Carolina. Santee Cooper holds a 45% stake in the expansion project. "We are hoping to wrap things up by late summer or early fall," said Mollie Gore, a spokeswoman for Santee Cooper. [The Post and Courier](#) (Charleston, S.C.) (free registration) (3/22) Share:    [E-MAIL](#)

Policy Watch

Rep. Issa seeks review of U.S. nuclear plants

The U.S. needs a thorough review of its reactors in the aftermath of the nuclear crisis in Japan, said Rep. Darrell Issa, R-Calif. "I think we always have to get to the bottom of a legitimate analysis for what happened and can it be prevented and if so, how do we do it?" Issa said. [The Hill/Blog Briefing Room](#) (3/21) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Management & Leadership

15 tips to make meetings worthwhile

Meetings can be productive if ground rules are put in place, such as everyone agreeing on key goals beforehand, writes Thomas Kayser, a Xerox veteran and author of "Building Team Power: How to Unleash the Collaborative Genius of Teams for Increased Engagement, Productivity, and Results." Participants should agree to support diverse opinions, record off-topic issues to discuss at another time and assess the meeting's effectiveness at the conclusion, Kayser writes. [SmartBrief/SmartBlog on Leadership](#) (3/21) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Cutting pay hurts morale, productivity

Studies show that while employees work hard initially after receiving a pay raise, that higher productivity doesn't last, Ray Fisman writes. On the other hand, employees whose pay is cut respond with lower morale and a drop in productivity, which is why salary reductions in an effort to save jobs may be a bad plan. Temporary furloughs, he writes, "might help to make lower pay more palatable, by presenting the cut as a temporary measure and by creating at least the illusion of a lower workload." [Slate](#) (3/18) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

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SmartQuote

“

Moral responsibility is not just a matter of avoiding harm to others; it also means helping people in need.”

--Michael Nedelsky,
American educator

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Washington, DC 20005

Hartland, David

From: Calle, Joselito
Sent: Tuesday, March 22, 2011 7:01 AM
To: Prince, Robert; Hartland, David
Cc: Russell, Regina
Subject: RE: RIII Debrief of IL State Senators

Bob,

Who is Rex Edwards from RIII? Please provide me with any additional information that you know and I will discuss with Tony Gody.

Thanks,

Joe

From: Prince, Robert
Sent: Monday, March 21, 2011 5:18 PM
To: Calle, Joselito; Hartland, David
Cc: Russell, Regina
Subject: RIII Debrief of IL State Senators

I received a phone call from Rex Edwards of RIII. They plan to debrief the State of IL Senators concerning actions associated with the recent events in Japan. During their preps Paducah came up. Either the RA or DRA from RIII will present the debriefing. RIII requested the following information:

1. What actions the NRC has taken and
2. What actions has the licensee taken

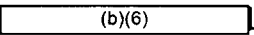
I know that USEC has taken some actions. Steve Pinrod provided a brief summary to me this afternoon after the Crit entrance. He has a phone call into Tony to provide details of their actions. Should I follow up or should this be coordinated with the Region?

Bob

Wert, Leonard

From: Wert, Leonard
Sent: Tuesday, March 22, 2011 11:41 AM
To: Rich, Daniel; Croteau, Rick
Subject: FW: <<< FPL's TURKEY POINT NUCLEAR PLANTS - IN THE NEWS >>>

Good to be aware of these assertions in prep for our public meetings...

From: Thomas Saporito [mailto: (b)(6)]
Sent: Tuesday, March 22, 2011 11:36 AM
Subject: <<< FPL's TURKEY POINT NUCLEAR PLANTS - IN THE NEWS >>>

FPL's Turkey Point Nuclear Plants

Thomas Saporito, Senior Consulting Associate
Email: thomas@saprodani-associates.com
Web: <http://Saprodani-Associates.com>
Post Office Box 8413, Jupiter, Florida 33468
Phone: (561) 972-8363 Fax: (561) 247-6404
Saprodani-Associates - Advocate/GreenPeace USA

Wert, Leonard

From: McCree, Victor
Sent: Monday, March 21, 2011 12:13 PM
To: Croteau, Rick; Jones, William; Munday, Joel; Christensen, Harold; Gody, Tony; Cobey, Eugene; Wert, Leonard; Ogle, Chuck; Moorman, James; Yerokun, Jimi
Subject: FW: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki
Attachments: Doc1.docx; bechtel detailed diagram.pdf; Japan Aid.xlsx; Chairmans March 18 Doc.docx

Attached, FYI, is a report of the CHM's recent meeting with the Japanese Ambassador to the U.S., and a diagram of the "equipment" that Bechtel has provided to the Japanese.

Vic

From: OST05 Hoc
Sent: Monday, March 21, 2011 10:56 AM
To: Piccone, Josephine; Jackson, Deborah; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tift, Doug; Trojanowski, Robert; Woodruff, Gena; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark
Subject: FW: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki

This is being forwarded for your information only...

Thanks,
Cindy Flannery
State Liaison – Liaison Team
NRC Incident Response Center

From: LIA07 Hoc
Sent: Saturday, March 19, 2011 6:25 AM
Subject: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki

Dear Colleagues,

Attached is the report summarizing Chairman Jaczko's meeting with Japanese Ambassador to the U.S. Ichiro Fujisaki, held on March 18, 2011, at 1600 hours EST. We have also included other key documents which provide additional information pertinent to the recent events. Please note this information is "official-use only" and is only being shared within the federal family. Please call the Headquarters Operations Office at 301-816-5100 with questions.

International Liaison Team
U.S. Nuclear Regulatory Commission

Hartland, David

From: Calle, Joselito
Sent: Tuesday, March 22, 2011 12:28 PM
To: Hartland, David
Subject: RE: Honeywell response to Q&As - withhold as Security related

David,

See if you can summarize this write-up to be in line with what we have for Paducah. Focus on addressing

1. [REDACTED] (b)(5)
2. [REDACTED]

Thanks,

Joe

From: Hartland, David
Sent: Tuesday, March 22, 2011 12:20 PM
To: Calle, Joselito
Subject: FW: Honeywell response to Q&As - withhold as Security related

From: Romano, Michelle
Sent: Tuesday, March 22, 2011 11:25 AM
To: Hartland, David
Subject: FW: Honeywell response to Q&As - withhold as Security related

One more for you...

From: Smith, James
Sent: Tuesday, March 22, 2011 11:19 AM
To: Sykes, Marvin; Romano, Michelle
Cc: Tschiltz, Michael; Kinneman, John; Gody, Tony; Cobey, Eugene; Bailey, Marissa; Liu, Tilda; Hiltz, Thomas
Subject: FW: Honeywell response to Q&As - withhold as Security related

FYI

From: Mattern, Kevin
Sent: Tuesday, March 22, 2011 10:41 AM
To: Smith, James
Cc: Liu, Tilda; Hiltz, Thomas
Subject: Honeywell response to Q&As - withhold as Security related

Jim,

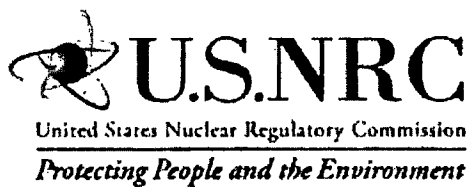
As discussed, here is the information provided by Honeywell in regards to the seismic/Japan questions. It

[REDACTED] (b)(5)
[REDACTED] (b)(5). Please note that this document is OUG.

Kind regards,

Kevin

Kevin S. Mattern
Project Manager
Nuclear Regulatory Commission (NRC)
Office of Nuclear Material Safety and Safeguards (NMSS)
Division of Fuel Cycle Safety and Safeguards (FCSS)
Special Projects and Technical Support Directorate (SPTSD)
Advanced Fuel Cycle, Enrichment, and Uranium Conversion Branch (AFCB)
(o) 301-492-3221
(c) (b)(6)
kevin.mattern@nrc.gov



Calle, Joselito

From: Prince, Robert
Sent: Tuesday, March 22, 2011 12:31 PM
To: Gody, Tony; Calle, Joselito
Cc: Russell, Regina
Subject: FW: USEC Paducah earthquake-related media interactions

Here are the links to the TV spots. If they do not open please let me know.

Bob

From: Lookofsky, Georgann [mailto:lookofskyg@pgdp.ussec.com]
Sent: Tuesday, March 22, 2011 11:11 AM
To: Prince, Robert; PGDP NRC Resident
Cc: Boren, Mike; Penrod, Steve
Subject: USEC Paducah earthquake-related media interactions

USEC GM Steve Penrod has done two interviews since the Japan earthquake and related nuclear issues, one with WPSD-TV, the local NBC affiliate, and one interview with WKMS-FM, the local NPR affiliate.

Link to WPSD-TV interview: <http://www.wpsdlocal6.com/news/local/USEC-responds-to-safety-concerns-in-the-midst-of-Japans-nuclear-crisis--118057359.html>

Intro to story posted on WPSD website:

WPSD-TV Channel 6 (Paducah, KY)

3/15/11

USEC responds to safety concerns in the midst of Japan's nuclear crisis

Reporter - Gerran Thomas

Photojournalist - Mason Watkins

Mar 15, 2011 at 10:06 PM CDT

PADUCAH — The threat of nuclear radiation is still a major cause for concern following the earthquake and tsunami in Japan.

The Japanese government is taking precautions, distributing thousands of doses of stable iodine, meant to protect the body from radiation, to evacuation centers.

But with our proximity to a uranium enrichment plant, the New Madrid fault line and several dams, many in our area wonder how safe we are from an earthquake and the fallout from such a catastrophic event.

So, Local 6 spoke with the vice president and general manager at the Paducah Gaseous Diffusion Plant, leased and operated from the Department of Energy by the **United States Enrichment Corporation**.

USEC's Steve Penrod said he and others who work at the plant send their thoughts and prayers out to the people of Japan.

The number three nuclear reactor at the embattled Fukushima Daiichi plant in Japan has used fuel from the **USEC** plant for several years.

What's happening in Japan has **USEC** and others in the nuclear industry taking about safety during and after a similar event. Watch the video to see what's at stake for our area and just how safe the plant would be in the event of an earthquake.

<http://www.wpsdlocal6.com/news/local/USEC-responds-to-safety-concerns-in-the-midst-of-Japans-nuclear-crisis--118057359.html>

WKMS-FM:

Intro posted on website:

PADUCAH, KY (wkms) - A nuclear power plant affected by last week's 8.9 earthquake in Japan continues to pose a danger. As workers try to stabilize the reactors at Fukushima, nuclear industry employees in other countries watch anxiously. The Paducah Gaseous Diffusion Plant produces the uranium fuel used in power plants around the world, including Japan. The Paducah plant is also near the New Madrid fault line, which scientists have estimated has the potential to cause a major earthquake. Angela Hatton spoke with PGDP General Manager Steve Penrod about safety precautions, and the differences between power plants and enrichment plants.

Employees at the Paducah Gaseous Diffusion Plant are collecting money for the Red Cross to help the people affected by the Japanese earthquake. The United States Enrichment Corporation plans to match the funds raised. Find out more about the nuclear industry at [NEI.org](http://www.nei.org).

Link to story broadcast:

<http://www.publicbroadcasting.net/wkms/news.newsmain/article/1/0/1777398/Local.Features/Manager.Says.Nuclear.Enrichment.Safer.in.Disaster.Than.Nuclear.Power>.

Georgann Lookofsky
Public Affairs Manager
USEC Paducah Plant
270-441-6981

(b)(6) (cell)

Diaz, Jose

From: Breskovic, Clarence
Sent: Tuesday, March 22, 2011 2:04 PM
To: Breskovic, Clarence
Subject: GNOSIS News 2011-03-22

~~For Official Use Only~~

Arms Control

U.S. - South Korea Extended Deterrence Policy Committee to Meet

Korea Times, March 21, 2011 Monday: The first high-level meeting of the Extended Deterrence Policy Committee, scheduled for March 28-29 in Hawaii, is expected to discuss measures to deal with the North's threats and assess the effectiveness of extended deterrence, officials said. The committee was set up last December after the allies agreed to step up their commitment to deterring North Korea amid high tensions following the North's two military attacks on the South last year. "Since it would be the first official meeting with high-level officials, the two sides are expected to set parameters of the committee rather than try to produce a specific agreement," said a senior official at Seoul's defense ministry. Working officials from the allies have held two rounds of meetings since early this year to set details of the agenda for the first level session, the official said on the condition of anonymity.

U.S. to give China a pass on NSG commitments for Pakistan nuclear deal

The Hindu, 2011-03-22: The United States has indicated it will not oppose China's building of two nuclear reactors in Pakistan, and will give Beijing a pass on its non-proliferation commitments by allowing the deal to go ahead in spite of concerns that it will violate international guidelines governing nuclear trade. The deal, many countries say, goes against China's commitments as a member of the Nuclear Suppliers Group (NSG), which bans the sale or transfer of technology to countries that have not signed the Nuclear Non-Proliferation Treaty (NPT). U.S. Assistant Secretary for South and Central Asian Affairs Robert Blake told journalists here he did not bring up the deal during talks with Chinese officials this week in South and Central Asia. While he reiterated the U.S. view that the deal was "inconsistent" with China's NSG commitments, he also mounted a defence of the need for the deal in a briefing with reporters, linking it to an energy crisis and instability in Pakistan.

Cooperation

The United States and Chile: Cooperation on the Peaceful Uses of Nuclear Energy

State Department Documents and Publications, March 21, 2011: The United States and Chile are actively engaged on energy, safety, security, and nonproliferation issues bilaterally and in the international arena. The United States and Chile cooperate on a range of issues related to the peaceful uses of nuclear technology. Memorandum of Understanding (MOU) between Chile and the United States have agreed to an MOU on the peaceful uses of nuclear energy. Under the MOU, the two governments will cooperate on human resource and infrastructure development, nuclear safety, security, safeguards, fuel design, and applications in industry, health, agriculture, and water.

Energy Policy

How quickly can Germany ditch nuclear?

UPI Energy, March 21, 2011 Monday : Germany, which has decided to temporarily shut down its seven oldest nuclear reactors,

power **reactors**, is debating whether it's realistic to completely phase out **nuclear** energy anytime soon. Merkel's move is an astonishing policy turnaround. Some six months ago, she agreed to extend the running times of Germany's **reactors** by an average of 12 years until renewables are ready to take over. **Nuclear** power, the Merkel government at the time, is stable, cheap and carbon dioxide-free. Her latest decision, announced as a response to the Japanese **reacto** could forever ground some, if not all of the seven **reactors** currently off the grid.

Australia weighs nuclear push after Japan crisis

CANBERRA, March 22 (Reuters) - Japan's nuclear crisis threatens to derail a political push by Australia's government to overturn a ban on selling uranium to India, as well as a drive to use nuclear power domestically to counter climate change. Prime Minister Julia Gillard's minority Labor government is planning a debate at a rare policy-making conference later this year on nuclear energy and relaxing a long-standing bar on uranium exports to New Delhi. Resources Minister Martin Ferguson told Reuters this month that he would press to modify prohibitions on uranium exports to countries which have signed the Nuclear Non-Proliferation Treaty that would allow sales of the nuclear fuel to India. But Gillard, who relies on the Greens opposed to nuclear energy to remain in power, said on Tuesday the events in Japan would trigger a global debate on nuclear energy.

UAE's Nuclear Watchdog Says To Review Atomic Energy Plans

2011-03-22, WSJ, DUBAI (Zawya Dow Jones): The United Arab Emirates' nuclear watchdog said it will carry out a thorough review of the license application for a planned atomic energy complex in Abu Dhabi in light of the accident at the Japanese nuclear power plant earlier this month. The review comes as the world's worst nuclear crisis since the disaster at the Chernobyl power plant in 1986 is unfolding in Japan, which has been battling for 10 days to control radiation leak from the heavily-damaged Fukushima Daiichi nuclear plant that was struck by a massive earthquake and tsunami on March 11. "As the independent nuclear safety regulator in the U.A.E., we at FANR are conducting a very thorough review of the Emirates Nuclear Energy Corporation's (Enec's) application for a licence to construct two nuclear power plants at the Baka site," said the Federal Authority for Nuclear Regulation, or FANR, said in a statement posted on its website March 20.

South Korea Sticks With Its Nuclear Plans

2011-03-22, WSJ: Japan's nuclear crisis has provoked jitters over nuclear safety around the world. And South Korea is an exception in world-wide efforts to dispel increasing public anxiety over nuclear power plants. "There is no change in the government's plan for expansion of nuclear power plants," said Yun Choul-ho, president of the Korea Institute of Nuclear Safety, said during a press briefing Tuesday. "We believe there is no alternative to nuclear energy at this stage, and in the meantime we can take this opportunity for reviewing nuclear safety, as well as for expanding exports of nuclear technology," he said. But at the same time, South Korea is sticking by its nuclear plans.

India: A confident NPCIL wants to build 36 imported reactors as India plans to generate 63,000 MWe by 2032

Frontline, Volume 28 - Issue 07 :: Mar. 26-Apr. 08, 2011: "WE have no choice but to pursue our nuclear power programme," said S.K Jain, Chairman and Managing Director, Nuclear Power Corporation of India Limited (NPCIL), in the context of the nuclear crisis in Japan. For, India does not have enough resources of fossil fuel such as coal or oil. It also does not have enough natural uranium deposits. He is confident that the crisis will not have any effect on the Indian programme. "Nuclear power is so precious for the world that we cannot give it up," he said.... The NPCIL has an ambitious programme to build at six locations 36 imported reactors that will have a total generating capacity of about 40,000 MWe. India plans to generate 63,000 MWe of nuclear power by 2032.

Government & Public Sector

Canada: Decision to sell off AECL puts Canada at risk

Vancouver Sun, 2011-03-21: The Conservative government's decision to sell off its nuclear agency may put Canada and other countries at risk, the association representing its engineers and scientists warned Monday. In response to fears o

nuclear catastrophe triggered by damage to Japan's Fukushima Daiichi power plant, the Society of Professional Engineers and Associates says the break up of Atomic Energy of Canada Ltd., likely would result in the loss of expertise needed to safely operate Candu nuclear reactors in the future. "The sale of AECL poses unknown risks for the Candu fleet of nuclear power plants, as the company is likely to lose highly skilled staff," SPEA vice-president Michael Ivanco said in a statement. "The federal government must ensure that, when it is time to implement the lessons learned from the Fukushima Daiichi nuclear power plant, there are people still working at AECL competent to implement those design fixes."

EU fails to agree on nuclear stress tests

BRUSSELS, March 21 (Xinhua) -- The European Union (EU) energy ministers failed on Monday to reach any consensus on the common criteria for the "stress tests" on the bloc's nuclear power plants. German Economy and Energy Minister Franz Schubert told a briefing after an extraordinary meeting of EU energy ministers that the disparity between different countries meant that it would be impossible to subject them to binding, EU-mandated tests. His words were echoed by EU energy Commissioner Guenter Oettinger. "Now let's have no illusions... there are very few questions where national governments and parliament have such a disparity of views as they do on the nuclear energy," Oettinger said.

Industry

Taiwan: Nuclear Shutdown Could Kill a Third of Industry: Official

Taipei *Want China Times* in English 1358 GMT 22 Mar 11 If Taiwan were to shut down its three existing nuclear power plants, a quarter to a third of companies across the country could be forced out of business, Chen Chao-yih, vice chair of the state-owned Enterprise Commission under the Ministry of Economic Affairs, said Monday (Mar. 21). Chen made the remark in response to questions about the consequences of shutting down Taiwan's nuclear power plants. Local concern about the safety of nuclear power has increased sharply after the crisis in Japan at the Fukushima nuclear plant damaged by the Mar. 11 earthquake.

Where is Japan's nuclear power CEO?

Reuters) 2011-03-21 - The head of the Japanese power company at the centre of one of the world's worst nuclear disasters has all but vanished from the public eye. And many Japanese, on a knife edge waiting to see if the nuclear power plant radiation leaks can be brought under control, are beginning to ask where he is and questioning how much he is in control of the crisis. Masataka Shimizu, chief executive of Tokyo Electric Power Co (TEPCO), has not made a public appearance this week. And he has yet to visit the crippled nuclear power plant north of Tokyo that was badly damaged in the massive earthquake and tsunami that struck on March 11, and where 300 workers are desperately trying to find ways to cool down reactors.

Materials

South Africa: Hippos blinded by noxious pollution in their dam: Tons of radioactive uranium are discharged by mines

Pretoria News (South Africa), March 22, 2011 Tuesday: The pair of herbivores is believed to be blind, as their West I reserve dam has become contaminated by acid mine decant. A few hundred metres from the hippo dam, untreated acid water churns out of pipes with a cocktail of heavy metals and **radioactive** materials. YOU MAY see the two hippos in Krugersdorp Nature Reserve, but the hippos probably won't see you.

Reactors

France: Sarkozy thinks that the safety of the Evolutionary Power Reactor (EPR) is too costly

Paris *Le Canard Enchaîné* in French 16 Mar 11: Report by Jean-Michel Thenard: "Sarkozy Hopes To Surf The Japan Wave". Sarko [French President Nicholas Sarkozy] thinks that the safety of the Evolutionary Power Reactor (EPR) is costly. After the Fukushima disaster, the traveling-sales-rep president wants to make a sales pitch.

Germany's Merkel, Ministers, State Leaders To Meet for Second Nuclear Power Summit

Munich *ARD.de* in German 0108 GMT 22 Mar 11: A week ago, Federal Chancellor Angela Merkel convened the first nuclear power summit. Another meeting is scheduled for today: with the five CDU/ CSU [Christian Democratic Union/ Christian Social Union] minister-presidents of states that are home to nuclear power plants she will discuss safety regulations and renewable energies. A week after Federal Chancellor Angela Merkel (CDU [Christian Democratic Union]) had called a meeting with the five CDU/ CSU [Christian Democratic Union/ Christian Social Union] minister-presidents of states that are home to nuclear power plants, the round will meet again today. Merkel wants to discuss "how to best use the time moratorium" and ways to carry out safety checks in all 17 nuclear power plants while lifetime extension is suspended.

China National Nuclear Corporation to conduct safety review of nuclear power plants

China Economic Review - Daily & Industry, March 22, 2011 Tuesday: China National Nuclear Corporation (CNNC) will conduct a comprehensive review of the safety of nuclear power plants following the central government's request, Xinhua news agency reported on Tuesday. Chen Hua, assistant of CNNC President said the results of this detailed seismic monitoring will be made public, providing people with updated accurate information.

Japan: All 6 Fukushima Reactors Reconnected To External Power

Tokyo, March 22 Kyodo -- All six reactors at the quake-stricken Fukushima Daiichi nuclear power plant were reconnected to external power, plant operator Tokyo Electric Power Co. said Tuesday, although smoke detected at the No. 2 and No. 3 reactors the day before had temporarily hampered efforts to restore power and cool down spent nuclear fuel pools. Tokyo Electric said that it is also close to restoring lighting in the control room for the No. 3 and No. 4 reactors, a move that is expected to allow for more intensive work to bring the nuclear crisis under control and to restore the reactors' key cooling functions.

Russia: "Vulnerable" Nuclear Power Plants Will Undergo Modernization

MOSCOW. March 22 (Interfax) - Rosatom believes the operation of those Russian nuclear power plants in which vulnerabilities will be found may be suspended, Rosatom programs director Sergei Boyarkin said. "After we get a detailed report from Japan, we will develop an in-depth program for testing the safety barriers of our nuclear power plants. If a detailed analysis reveals vulnerable points, the units will be temporarily suspended, will undergo modernization, and will be put into operation again," he said. Boyarkin recalled that Rosatom has conducted an additional analysis of Russian nuclear power plants due to the events on the Japanese nuclear power plant Fukushima. "This analysis showed that our nuclear power plants are resistant to the combination of events that occurred in Fukushima," he said. In the meantime, Boyarkin said closing down nuclear power plants would considerably worsen the environmental situation.

Japan: Status of Fukushima Nuclear Power Plants Tuesday Evening

Tokyo *Kyodo World Service* in English 1100 GMT 22 Mar 11: Tokyo, March 22 Kyodo -- The following is the known status as of Tuesday evening of each of the six reactors at the Fukushima Daiichi nuclear power plant and the four reactors at the Fukushima Daini plant, both in Fukushima Prefecture, which were crippled by the magnitude 9.0 earthquake and ensuing tsunami on March 11....

Safe nuclear power does exist and China is building it with thorium

The Daily Telegraph (London), March 21, 2011 Monday: This passed unnoticed - except by **thorium** fans - but it marks the passage of energy leadership from an inert and status-quo West to a rising power willing to break the mould. If China's dash for **thorium** power succeeds, it will vastly alter the global energy landscape and may avert conflict over resources. Asia's industrial revolutions clash head-on with the West's entrenched consumption. A few weeks before the tsunami at Fukushima's **uranium** reactors and shattered public faith in **nuclear** power, China revealed that it was launching a drive

technology to build a safer, cleaner, and ultimately cheaper network of **reactors** based on **thorium**.

Russia: Nuclear Plant Tours Offered

22 March 2011, The Moscow Times: Kiriienko said Sunday that ordinary people and journalists would be invited to tests at the country's nuclear power plants, Interfax reported. Ordinary people may get the chance to inspect safety at Russian nuclear power stations, Rosatom chief Sergei Kiriienko said, offering assurances about the safety of nuclear power following the accident at Japan's Fukushima plant.

Canada's nuclear plants ordered to review safety after disaster in Japan

Globe and Mail, Monday, Mar. 21, 2011 4:58PM EDT: Canada's nuclear industry is facing repercussions from Japan alarming reactor failures, as the federal regulator orders safety reviews and critics demand a halt to any new projects. The first casualties may be Quebec's only nuclear station, the Gentilly-2 plant, which is slated for a \$2-billion refurbishment to extend its life for 40 years. The Parti Québécois has joined with activists in the province to demand the government halt to the project. In Ontario, environmental groups are urging the Canadian Nuclear Safety Commission to suspend licensing hearings into Ontario Power Generation's plan to build two reactors at its Darlington site. The review panel started its work on Monday in Courtice, Ont., and the provincial and federal energy ministers have said there is no reason to halt. However, the CNSC has ordered all reactor operators to review their safety protocols in light of the unfolding crisis at Fukushima Daiichi nuclear station, and to report on plans to address shortcomings by the end of April.

German nuclear plants face tougher safety rules

BERLIN, March 22 (Reuters) - German Chancellor Angela Merkel summoned state premiers on Tuesday to tackle what is likely to be tougher safety rules for nuclear power plants after the Japanese crisis as well as a faster transition to green energy. Merkel, along with her environment and economy ministers, is meeting chiefs of the five states that host atomic power stations for a second time since she suspended her nuclear policy and ordered the closure of seven plants that operated before 1980 for safety checks. An expert panel on German nuclear plant safety is likely to recommend stricter safety measures next week following the crisis at Japan's Fukushima complex, its head was quoted on Tuesday as saying.

India: crisis in Japan presents an opportunity for India to further hone its nuclear technologies

Frontline, Volume 28 - Issue 07 :: Mar. 26-Apr. 08, 2011: While the safety record of Indian NPPs has been fairly good, there is no room for complacency and it is an opportune moment to review the safety measures in place in our NPPs and make improvements if needed. The Prime Minister too has called for a full technical review of the safety of all the NPPs. Even though a safety audit of all the NPPs was carried out apparently recently, the perspective on the risk associated with nuclear power has changed drastically after the incident in Japan. If needed, as former Chairman of the Atomic Energy Commission M.R. Srinivasan has said, a safety audit can be conducted for all the plants again with modified benchmarks arising from an altered perspective of risk analysis.

Regulatory Affairs

Sweden: Nuclear power industry lacks safety specialists

Svenska Dagbladet, March 19, 2011 Saturday: Swedish **nuclear** power industry is expected to face a shortage of safety personnel as the majority of specialists will retire within five years. A report from the Swedish **Radiation Safety Authority** (Strålsäkerhetsmyndigheten) has found that it will take many years to replace the competence of the retiring workforce as a new specialist takes 20 years to educate. The interest in **nuclear** technology research collapsed following the Chernobyl disaster 1986 and legislative changes which banned preparations for **nuclear reactor** development.

India: Is our nuclear regulator independent enough?

Business Standard, 2011-03-21: Former AERB chief A Gopalakrishnan says it isn't, others disagree. Indian nuclear scientists are divided on whether the Atomic Energy Regulatory Board (AERB) can adequately and impartially monitor the sector.

Former AERB chief A Gopalakrishnan is one of them. He says it is nonsense to believe the present AERB structure is the job. The debate was set off by Union environment minister Jairam Ramesh's suggestion, in the wake of the Japan nuclear crisis, of an independent regulatory body for the sector. Many at the Department of Atomic Energy (DAE), Indian Nuclear Society and Nuclear Power Corporation (NPC), have strongly argued the AERB is best-placed to grant, renew, withdraw and revoke consent for nuclear and radiation facilities. Gopalakrishnan and some others who do not want to be named say Jairam is correct and both AERB and DAE would always protect the interests of NPC as an utility.

Safety

South Korea: Yellow dust from China found to be radioactive

March 21, 2011, JoongAng daily: Yellow dust blowing over Korea from China every year is believed to contain radioactive material presumed to have been leaked from nuclear power plants in the neighboring country, a state think tank said yesterday. Small amounts of cesium-137, a highly radioactive material, have been detected in Korea's air and soil between February and April - when the dust gets most serious - over the past 10 years, the Korea Institute of Nuclear Safety's report submitted to an opposition lawmaker.

Global Nuclear Open Source Information Service (GNOSIS) 2011-03-22

Clarence Breskovic
International Policy Analyst
U.S. Nuclear Regulatory Commission
Office of International Programs
11555 Rockville Pike
Rockville, MD 20852, USA
Tel: 1-301-415-2364
Fax: 1-301-415-2395
Alternate Email: (b)(6)

Hamilton, Ruben

From: Hamilton, Ruben
Sent: Tuesday, March 22, 2011 3:00 PM
To: (b)(6)
Subject: And so it starts.
Attachments: ML110760432.pdf

Woodruff, Gena

From: OST05 Hoc
Sent: Tuesday, March 22, 2011 8:46 PM
To: McNamara, Nancy; Tifft, Doug; Maier, Bill; Barker, Allan; Logaras, Haral; Trojanowski, Robert; Woodruff, Gena
Cc: Turtill, Richard; Virgilio, Rosetta; LIA04 Hoc; OST05 Hoc; Piccone, Josephine; Jackson, Deborah; Maupin, Cardelia; Flannery, Cindy; Rivera, Alison; Easson, Stuart; Lukes, Kim; Rautzen, William; LIA05 Hoc
Subject: FW: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

RSLOs,

Please note that we are awaiting response from U.S. Customs and Border Protection regarding aircraft, passenger, baggage and cargo radiological monitoring. We will forward information as it is received tomorrow.

Michelle
Michelle Ryan
State Liaison – Liaison Team
NRC Operations Center

From: (b)(6)
Sent: Tuesday, March 22, 2011 8:41 PM
To: LIA05 Hoc
Cc: LIA01 Hoc; LIA08 Hoc; LIA04 Hoc; OST05 Hoc
Subject: Re: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

All,

I will forward the carrier info first thing tomorrow. Thx.

(b)(6)

(b)(6)

Operational Development
U.S. Customs and Border Protection
Washington, D.C.

(b)(6)

(office)
(blackberry)

Sent via Blackberry handheld

(b)(6)

From: prvs=0554e15a5=LIA05.Hoc@nrc.gov <prvs=0554e15a5=LIA05.Hoc@nrc.gov>
To: STERLING, HELEN
Cc: LIA01 Hoc <LIA01.Hoc@nrc.gov>; LIA08 Hoc <LIA08.Hoc@nrc.gov>; LIA04 Hoc <LIA04.Hoc@nrc.gov>; OST05 Hoc <OST05.Hoc@nrc.gov>
Sent: Tue Mar 22 19:32:16 2011
Subject: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

(b)(6)

Per our telephone conversation, please provide the aforementioned information that can be forwarded to NRC Regional State Liaison Officers.

Thank you again, for your attention to this matter.

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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~~DO NOT RELEASE OUTSIDE OF THE FEDERAL FAMILY~~

Crowe, Eddy

From: Crowe, Eddy
Sent: Wednesday, March 23, 2011 7:39 AM
To: McCree, Victor
Subject: RE: ~~FOR OFFICIAL USE ONLY~~ - 0700 EDT (March 23, 2011) USNRC Earthquake/Tsunami SitRep - ~~FOR OFFICIAL USE ONLY~~

Thank you for these updates. They have been very helpful in understanding the event and overcoming mis-information from the media.

From: McCree, Victor
Sent: Wednesday, March 23, 2011 7:32 AM
To: R2MAIL; R2_RESIDENT SITES
Subject: ~~FOR OFFICIAL USE ONLY~~ - 0700 EDT (March 23, 2011) USNRC Earthquake/Tsunami SitRep - ~~FOR OFFICIAL USE ONLY~~

~~FOR OFFICIAL USE ONLY~~

Attached, for your information, is the 0700, March 23, 2011, NRC situation report regarding the impacts of the earthquake/tsunami event, (yellow) highlighted to show several noteworthy status items. This document is considered ~~FOR OFFICIAL USE ONLY~~ and is not to be distributed outside the agency.

Two other items of interest:

- A Temporary Instruction (TI) will soon be issued with guidance for inspectors to assess the adequacy of actions taken by power reactor licensees in response to the Fukushima Daiichi nuclear station fuel damage event. The TI will require inspectors to evaluate each licensee's readiness to mitigate beyond-design basis events, such as earthquakes, flooding, etc.
- A Task Group is being formed to identify near term actions, using current insights from the Fukushima Daiichi, to further improve NRC and licensee programs to enhance safety. Although the charter for the Task Group is still under development, areas that will likely be reviewed include:
 - the location of equipment, environmental conditions, and personnel available to implement B5b contingency response strategies;
 - the implication of multiple simultaneous beyond design basis accidents;
 - station blackout (SBO) requirements; and,
 - fire coping strategies that include a self-induced SBO.

Vic

~~FOR OFFICIAL USE ONLY~~

Seymour, Deborah

From: Seymour, Deborah
Sent: Wednesday, March 23, 2011 7:52 AM
To: 'Katie Steddenbenz'
Subject: RE: Your future office

Thanks! I didn't realize [redacted] (b)(6) The NRC is very involved with the Japan event, and several people are over there assisting, including Alan Blamey, from DCP. Thanks for your list. I will check to see if you can get 922, and if you can't I believe you will get 927, your second choice. Hopefully we will see you next week, or very soon! Take care, Deb

From: Katie Steddenbenz [mailto:[redacted] (b)(6)]
Sent: Tuesday, March 22, 2011 7:00 PM
To: Seymour, Deborah
Subject: Re: Your future office

Hi Deb! So great to hear from you! How is the NRC dealing with the Japan disaster? I have been trying to keep up with everything as much as I can, especially since I'm nuclear engineering so have been getting a ton of questions.

[redacted] (b)(6)

Here is my list of office preferences. I honestly will be satisfied where ever I end up though.

1. 922
2. 917
3. 921
4. 918
5. 916
6. 914
7. 947
8. 908

Thanks and see you soon hopefully.

Katie

--

Katherine Steddenbenz
Georgia Institute of Technology
Nuclear & Radiological Engineering

[redacted] (b)(6)

On Mar 22, 2011, at 3:18 PM, Seymour, Deborah wrote:

Hi Katie, Here's hoping everything is going well for you! I am thinking ahead and trying to reserve you an office for when you report. When you have a moment, please look at the attached 9th floor plan.

At this time there are eight offices available on the 9th floor. There are three window offices: Rms 947, 922, and 908. There are five interior offices available: Rms 917 (Justin Allen's old office), and 921, 918, 916, and 914. (your old offices).

Please let me know what office(s) you are interested in.

If you are interested in a window office, we are required to go through a union selection process. Basically, if a current DCP employee, who is in an interior office, wants a window office, they can pre-empt you. But I still think you would have a good chance, since there are three available. Please note that office 947 has a column in it, and it is slightly smaller than the others (it is still a great office and right next to Bill Gloersen).

If you want an interior office, you will get it (as long as I claim it before someone else does).

So, please let me know what you would like, in order of preference.

You may want to visit us before you decide. We would love to see you! And I could take you out to lunch if you had time. Please let me know.

Thanks, Deb, x-4476

<DOC_20110322161159.PDF>

Michel, Eric

From: Michel, Eric
Sent: Wednesday, March 23, 2011 7:54 AM
To: Artayet, Alain
Subject: RE: Path forward
Attachments: image001.png

Thanks.

From: Artayet, Alain
Sent: Tuesday, March 22, 2011 3:17 PM
To: Mellen, Larry
Cc: Heisserer, Jamie; Michel, Eric
Subject: FW: Path forward

This is a good summarized representation of NRO's position based on conversations during last week's teleconference.
Thank you.

From: Mellen, Larry
Sent: Tuesday, March 22, 2011 9:55 AM
To: Artayet, Alain
Subject: FW: Path forward

Distribute this as you see fit

From: Patel, Pravin
Sent: Thursday, March 17, 2011 1:28 PM
To: Mellen, Larry
Cc: Shams, Mohamed; Patel, Pravin
Subject: RE: Path forward

Larry,

Sorry for late response as I am involved in Japan issues. Attached is the draft TAR may satisfy your concern. Let me know.

Pravin

From: Mellen, Larry
Sent: Wednesday, March 16, 2011 10:02 AM
To: Patel, Pravin
Cc: Artayet, Alain; Brown, Michael
Subject: Path forward

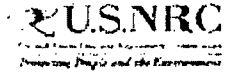
Good morning Pravin,

(b)(5)

(b)(5)

Thank you

Larry S Mellen



Larry Mellen, PhD, Senior Construction Project Inspector
Division of Construction Projects
Vogtle Project
USNRC Region II
O: 404.997.4468
C: (b)(6)
E-Mail:
NRC: Larry.Mellen@NRC.GOV

Mailing address:
USNRC
Marquis One Tower
245 Peachtree Center Avenue, NE, Suite 1200
Atlanta, Georgia 30303-1257

Wert, Leonard

From: Wert, Leonard
Sent: Wednesday, March 23, 2011 8:19 AM
To: Ledford, Joey
Subject: RE: NY Times

Got it, Thanks

From: Ledford, Joey
Sent: Wednesday, March 23, 2011 8:14 AM
To: Wert, Leonard
Subject: NY Times

Here's a link to that NY Times story I mentioned earlier:

<http://www.nytimes.com/2011/03/22/world/asia/22nuclear.html?scp=5&sq=japan%20nuclear%20regulator&st=cse>

Joey Ledford
Public Affairs Officer
Region II – Atlanta, Ga.
O: 404.997.4416

C: (b)(6)
joey.ledford@nrc.gov



Wert, Leonard

From: Wert, Leonard
Sent: Wednesday, March 23, 2011 8:46 AM
To: Lew, David
Cc: Howell, Art; Pederson, Cynthia
Subject: RE: Timeliness of TI on Follow-Up of Japan Events

(b)(5)

Len

From: Lew, David
Sent: Tuesday, March 22, 2011 5:32 PM
To: Howell, Art; Pederson, Cynthia; Wert, Leonard
Subject: RE: Timeliness of TI on Follow-Up of Japan Events

(b)(5)

From: Howell, Art
Sent: Tuesday, March 22, 2011 5:17 PM
To: Pederson, Cynthia; Lew, David; Wert, Leonard
Subject: RE: Timeliness of TI on Follow-Up of Japan Events

We can support 4/29

From: Pederson, Cynthia
Sent: Tuesday, March 22, 2011 4:13 PM
To: Howell, Art; Lew, David; Wert, Leonard
Subject: RE: Timeliness of TI on Follow-Up of Japan Events

I agree.

-----Original Appointment-----

From: Wert, Leonard **On Behalf Of** Grobe, Jack
Sent: Tuesday, March 22, 2011 4:09 PM
To: Howell, Art; Pederson, Cynthia; Lew, David
Subject: FW: Timeliness of TI on Follow-Up of Japan Events
When: Wednesday, March 23, 2011 2:00 PM-2:30 PM (GMT-06:00) Central Time (US & Canada).
Where: Bridge Line : 888-324-7516 Pass Code: (b)(6)

(b)(5)

Len

-----Original Appointment-----

From: Grobe, Jack

Sent: Tuesday, March 22, 2011 4:35 PM

To: Grobe, Jack; Kobetz, Timothy; Westreich, Barry; Lew, David; ODaniell, Cynthia; Lee, Pamela; Wert, Leonard; Pederson, Cynthia; Tomczak, Tammy; Howell, Art; Owen, Lucy

Subject: Timeliness of TI on Follow-Up of Japan Events

When: Wednesday, March 23, 2011 3:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).

Where: Bridge Line : 888-324-7516 Pass Code: (b)(6)

When: Wednesday, March 23, 2011 3:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).

Where: Bridge Line : 888-324-7516 Pass Code: (b)(6)

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*

This meeting was requested by Jack Grobe and was scheduled by Shari Cohen on March 22, 2011 at 4:34 p.m. (301) 415-1270.

Coovert, Nicole

From: NEI SmartBrief [nei@smartbrief.com]
Sent: Wednesday, March 23, 2011 9:42 AM
To: Coovert, Nicole
Subject: March 23, 2011 - Nuclear energy remains essential to Japan, official says

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MARCH 23, 2011

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Crisis in Japan

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Nuclear energy remains essential to Japan, official says

Japan is still dedicated to nuclear power despite the reactor crisis because it needs to harness clean energy, said Hidehiko Nishiyama, the deputy-director general of Japan's Nuclear and Industrial Safety Agency. "While people may become more cautious, renewable energy alone isn't sufficient, so nuclear power is essential," Nishiyama said. [Bloomberg](#) (3/22) [Share: \[Twitter\] \[Facebook\] \[LinkedIn\]](#)

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Smoke is seen from one of Fukushima Daiichi's reactor buildings

Smoke was seen today from the structure that houses the Unit 3 reactor of the Fukushima Daiichi nuclear plant, said Hidehiko Nishiyama, the deputy-director general of Japan's Nuclear and Industrial Safety Agency. The cause had not been determined, Nishiyama said. [Reuters](#) (3/23) [Share: \[Twitter\] \[Facebook\] \[LinkedIn\]](#) [E-MAIL](#) [RELATED STORIES](#)

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The latest ExxonMobil Sustainability Case Study provides an in-depth analysis of Exxon's current sustainability efforts and the impact this has on the rest of its upstream/downstream businesses. [Learn more here.](#)

News Roundup

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NEI rolls out emergency-preparedness steps for U.S. plants

The Nuclear Energy Institute unveiled emergency-preparedness steps for U.S. nuclear facilities amid safety concerns in the aftermath of the Japanese nuclear crisis. "If evacuation were necessary, emergency responders would initially focus on those citizens likely to be exposed to a potential radioactive release: those within a two-mile radius around the plant, as well as

sector(s) five miles downwind. State and local governments make the determination and implement protective action orders for the public," according to the document. [The Hill/E2 Wire blog \(3/22\)](#) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Westinghouse CEO touts safety of U.S. nuclear plants



The U.S. nuclear industry boasts a "tremendous" safety record that resulted from "basically going overboard" on policy and criteria, said Aris Candris, president and CEO of Westinghouse Electric. Candris said the country's nuclear facilities are built to withstand earthquakes and tsunamis and that he doesn't expect U.S. policy reforms in the aftermath of the reactor crisis in Japan. [Fox Business \(3/21\)](#) Share: [in](#) [f](#) [c](#) [E-MAIL](#)

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B&W may join efforts to stabilize Fukushima reactors

Babcock & Wilcox is in discussions to help Toshiba secure the stricken Fukushima Daiichi nuclear facility in Japan. Nuclear continues to play a key role in the global energy mix, B&W President and CEO Brandon Bethards said, even as the industry learns from recent events. [Victoria Advocate \(Texas\)/The Associated Press \(3/22\)](#) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Japan nuclear crisis offers lessons in safety



OPINION

The nuclear crisis in Japan offers lessons for the U.S. nuclear industry, which is already working to ensure safety, writes Brew Barron, president and CEO of Constellation Energy Nuclear Group. Constellation and other U.S. nuclear operators are confirming that their plants can withstand natural disasters. Updating government officials and the public during an incident is a key component of Constellation's dedication to safety, Barron adds. [The Sun \(Baltimore\) \(3/21\)](#) Share: [in](#) [f](#) [c](#)

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NRC to review Indian Point's durability against stronger quakes

The Nuclear Regulatory Commission has agreed to study the ability of Entergy's Indian Point plant to withstand stronger earthquakes, NRC spokesman Neil Sheehan said after the agency's meeting with New York state officials. The NRC expects to share its findings with Gov. Andrew Cuomo, Sheehan said, and the license-renewal review for the facility continues. [The Wall Street Journal/The Associated Press \(3/22\)](#) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Yucca Mountain lawsuits could be premature, court says

Lawsuits against the Department of Energy for withdrawing its application to develop the Yucca Mountain project in Nevada could be premature, a federal appeals court said. The challenges were filed before the Nuclear Regulatory Commission's final decision on the application, a three-judge panel said. "We have to have finality," Chief Judge David Sentelle said. [The New York Times \(free registration\)/Greenwire \(3/22\)](#) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)



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Policy Watch

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Sen. Graham: U.S. must continue to back nuclear energy

Americans should continue to support nuclear energy despite the Japanese reactor crisis, Sen. Lindsey Graham, R-S.C., said during his visit to Duke Energy's Oconee nuclear plant in South Carolina. Wind and solar aren't capable of displacing coal-powered facilities, but nuclear can, Graham said. "I'm here because I believe in nuclear power," he added. [Anderson \(S.C.\) Independent-Mail \(3/22\)](#) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

Illinois lawmakers to hold discussions on nuclear safety

Sens. Dick Durbin, D-Ill., and Mark Kirk, R-Ill., are requesting nuclear energy experts to attend discussions on the safety of the state's nuclear plants and emergency preparedness. Officials from Exelon, the Nuclear Regulatory Commission and Illinois Emergency Management Agency said they intend to show up. "I have no reason to believe we have a particular concern (in Illinois), but what happened in Japan, I think, is fair warning that we ought to periodically review this," Durbin said. [Chicago Tribune/The Associated Press \(3/22\)](#) Share: [in](#) [f](#) [t](#) [E-MAIL](#)

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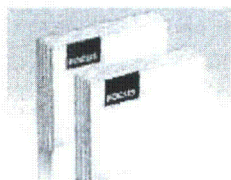
How to lead like a Hollywood producer

The best bosses understand that successful business moves depend on identifying and telling compelling stories, says Hollywood producer Peter Guber. Only by forging vivid narratives can leaders persuade their workers, investors and target markets to take a leap of faith on their products and services. "Start by building a relationship with your audience -- your customers, employees, whoever it is," Guber advises. "Study who they are and what they care about. Then craft your story as if you're talking to one person." [Strategy+Business \(free registration\) \(3/21\)](#)

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Is your company dazed and confused?

Most executives are deeply frustrated by their company's approach to strategic decision making, a Booz & Co. survey found. More than half say their company's strategy isn't helping it achieve its goals, almost two-thirds say their strategic visions are a tangled mess of conflicting priorities and more than four-fifths say their strategic planning leads to waste and lost productivity. That suggests most firms are paying an "incoherence penalty" for failing to develop strategies that make the most of their strengths, write Paul Leinwand and Cesare Mainardi. [SmartBrief/SmartBlog on Finance \(3/22\)](#) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)



New 2010 Enterprise VoIP Buyer's Guide

This updated Buyer's Guide from Focus will help you fully understand both your business phone system needs as well as the purchase process. Compare features and read advice from other buyers. [Click Here](#) to learn more.

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SmartQuote



Whenever the world throws rose petals at you, which thrill and seduce the ego, beware."

--Anne Lamott,
American writer

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This SmartBrief was created for Nicole.Coovert@nrc.gov

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Jones, William

From: Jones, William
Sent: Wednesday, March 23, 2011 11:10 AM
To: Croteau, Rick
Cc: Wert, Leonard; Christensen, Harold; Munday, Joel
Subject: Actions: DRP TI 183 Update

Discussed the proposed TI and timeline for completion at the 3/23 safety meeting

-
-
-
-

(b)(5)

Briefed Vic on where we are and planned actions.

William B. Jones
Deputy Director, Division Reactor Projects, Region II
(404) 997-4501
(404) 357-3550

Woodruff, Gena

From: OST05 Hoc
Sent: Wednesday, March 23, 2011 11:23 AM
To: Browder, Rachel; LIA04 Hoc; Easson, Stuart; Flannery, Cindy; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; Barker, Allan; Erickson, Randy; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena
Cc: LIA08 Hoc; LIA01 Hoc; LIA11 Hoc
Subject: FW: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring
Attachments: TAB 8 Japan Protocols Message to the Aviation Industry.pdf

RSLOs, State Liaisons, and Rachel:

Please see attached Customs and Border Protection (CBP) document to "aviation industry partners" that discusses CBP's protocols for screening at passengers and cargo arriving in the U.S. The document is dated 3/18, but was released today, 3/23. Distribute as appropriate.

Richard Turtill
NRC State Liaison – Liaison Team
Incident Response Center

From: LIA04 Hoc
Sent: Wednesday, March 23, 2011 10:58 AM
To: OST05 Hoc
Subject: FW: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

FYI,

From: LIA05 Hoc
Sent: Wednesday, March 23, 2011 10:34 AM
To: LIA04 Hoc; LIA06 Hoc; LIA08 Hoc
Subject: FW: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

Attached is the CBP information concerning Rad monitoring, as requested.

Larry Broockerd

Bonnie Sheffield Dayshift 0700-1500
Ken Wiernman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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From: (b)(6)
Sent: Wednesday, March 23, 2011 10:06 AM
To: LIA05 Hoc
Subject: RE: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

All,

See attached information regarding monitoring of passenger, baggage and cargo coming from Japan.

(b)(6)

Operational Development
Office of Field Operations
U.S. Customs and Border Protection

(b)(6)

(office)
(blackberry)

From: prvs=0565adb72=LIA05.Hoc@nrc.gov [mailto:prvs=0565adb72=LIA05.Hoc@nrc.gov] **On Behalf Of** LIA05 Hoc
Sent: Tuesday, March 22, 2011 8:42 PM
To: (b)(6)
Subject: RE: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

(b)(6)

Thank you for the response.

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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From: (b)(6)
Sent: Tuesday, March 22, 2011 8:41 PM
To: LIA05 Hoc
Cc: LIA01 Hoc; LIA08 Hoc; LIA04 Hoc; OST05 Hoc
Subject: Re: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

All,

I will forward the carrier info first thing tomorrow. Thx.

(b)(6)

(b)(6)

Operational Development
U.S. Customs and Border Protection
Washington, D.C.

(b)(6)

(office)
(blackberry)

Sent via Blackberry handheld

(b)(6)

From: prvs=0554e15a5=LIA05.Hoc@nrc.gov <prvs=0554e15a5=LIA05.Hoc@nrc.gov>

To: (b)(6)

Cc: LIA01 Hoc <LIA01.Hoc@nrc.gov>; LIA08 Hoc <LIA08.Hoc@nrc.gov>; LIA04 Hoc <LIA04.Hoc@nrc.gov>; OST05 Hoc <OST05.Hoc@nrc.gov>

Sent: Tue Mar 22 19:32:16 2011

Subject: CBP Information Regarding Aircraft, Passenger, Baggage and Cargo Radiological Monitoring

(b)(6)

Per our telephone conversation, please provide the aforementioned information that can be forwarded to NRC Regional State Liaison Officers.

Thank you again, for your attention to this matter.

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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**U.S. CUSTOMS AND BORDER PROTECTION
OFFICE OF FIELD OPERATIONS
March 18, 2011**



A message to our aviation industry partners:

U.S. Customs and Border Protection (CBP) is monitoring the evolving situation in Japan carefully to ensure the safety of all passengers and cargo arriving in the United States.

As the Nuclear Regulatory Commission and other experts have said, we do not expect to see radiation at harmful levels reaching the United States from damaged Japanese nuclear power plants. As a result of the Government of Japan's efforts to create a safety zone around the Fukushima Dai'ichi Nuclear Power Facility, we have been advised by technical experts that the exposure of the general population and its industries in the affected area has been minimal to date. Accordingly, cargo and travelers arriving from Japan will contain little to no radiological contamination – well below harmful levels, if any.

Since 9/11, CBP has employed radiation detection technology at Ports of Entry that can determine the presence of radioactive materials or contamination. All frontline Office of Field Operations personnel are equipped with Personal Radiation Detectors (PRD), a personal radiation device that notifies officers of when radiation is present. These devices will provide effective notice of any health risk.

Out of an abundance of caution, CBP has issued field guidance reiterating its radiation detection operational protocols and directing field personnel to monitor air traffic from Japan. We have not changed passenger screening protocols for radiation detection, but we have given guidance to our port directors to meet and screen cargo and baggage plane-side as it is being off-loaded. These procedures should not be interpreted to suggest that DHS or CBP believe there to be a high-risk on cargo and baggage from Japan. Instead, they represent precautionary measures to avoid the potential for even safe, low-levels of radiation on baggage or cargo from entering the terminals and thereby potentially impacting carrier and CBP operations.

Frontline personnel who receive radiation detection readings when processing conveyances, travelers and effects, or cargo arriving from Japan, follow longstanding standard resolution protocols. When officers receive a standard radiation detection alert, our protocols call for the person, baggage or cargo to be referred for secondary screening. CBP radiation detection Standard Operating Procedures (SOP) employ a layered approach that requires that all radiation alerts are adjudicated. To identify the source of an alarm, CBP Officers use sophisticated technology to identify the level and type of radiation present.

During this secondary processing, CBP officers work with technical experts who determine that the radiation source is legitimate and at levels that do not pose a health hazard. If we determine that radiation levels are unsafe in any way, CBP will notify the affected carrier and airport authorities and coordinate on appropriate responses.

It should be noted that since the event in Japan began, no person, baggage, cargo or aircraft entering the United States has received a positive alert for radiation deemed by CBP to be at harmful levels. In fact, the radiation levels measured in the cargo shipments that have alarmed to date are lower than one would receive watching TV for several hours, and represent only a fraction of the radiation levels that one would

be exposed to when receiving a chest X-ray or other radiological medical treatment.

In the unlikely event that a traveler exhibits signs of radiation illness, pursuant to existing protocols, CBP would refer the individuals to health authorities to provide appropriate treatment. Again, to date, no travelers with signs of radiation sickness have been identified.

CBP continues to evaluate the potential risks posed by radiation contamination on inbound travelers and cargo and will adjust its detection and response protocols, in coordination with its interagency partners, as developments warrant. Additionally, we will continue to communicate our operational actions and responses to our partners in the aviation industry and we look forward to continuing to work with you to ensure the safe and expeditious movement of air travelers and cargo from Japan.

Should carriers have any concerns with CBP procedures, they are encouraged to contact the local CBP Port Director to resolve the issue or contact Office of Field Operations Headquarters at 202-344-1850.

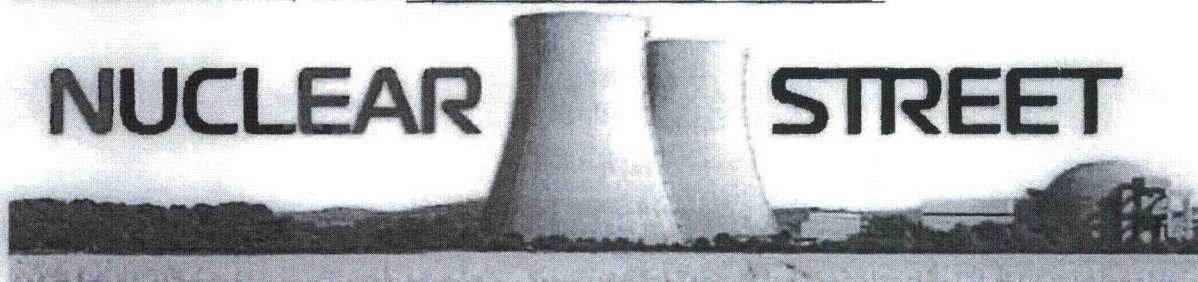
Sabisch, Andrew

From: Sabisch, Andrew
Sent: Wednesday, March 23, 2011 2:04 PM
To: Bartley, Jonathan; Rapp, Curtis; Stamm, Eric
Cc: Ellis, Kevin; Ottenberg, Geoffrey; Hamman, Joyce
Subject: Some interesting information on the Japan situation

In case you have a few minutes to read this wanted to pass it along

From: Nuclear Street [mailto:cabernethy@nuclearstreet.com]
Sent: Wednesday, March 23, 2011 1:41 PM
To: Sabisch, Andrew
Subject: Nuclear Street - Lights Finally on at a Fukushima, Efforts Progress at Damaged Japanese Nuclear Plant, Shaw Group, Babcock & Wilcox Join Toshiba

To view this newsletter online, click here: http://nuclearstreet.com/newsletters/3_23_11.html



WEDNESDAY MARCH 23, 2011: NEWSLETTER

Lights Finally on at a Fukushima Daiichi Control Room, Power Lines Extended to All Six Units (With Concrete Truck Spraying Video)

For the first time in more than a week, outside power illuminated the control room Tuesday at unit 3 of Japan's Fukushima Daiichi nuclear plant, where operators have struggled with overheating in reactors and spent fuel pools since an earthquake hit the country March 11.

Plant Owner Tokyo Electric Power Co. reported Tuesday that power lines have been connected to all six reactor units at the plant, according to Kyodo News. Crews also have been checking systems and replacing damaged equipment before reintroducing power to the reactors. While a photo released by TEPCO showed technicians in the now-lighted unit 3 control room, crews were still working to bring instruments and equipment back online.

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Workers Briefly Evacuated, but Efforts Progress at Damaged Japanese Nuclear Plant (With Spraying Video)

Work at the Fukushima Daiichi nuclear plant to restore electricity and refill spent fuel tanks wore on Monday, with workers briefly evacuated while smoke or steam was observed above two reactors.

A team of water trucks continued to spray water on reactors 3 and 4. The amount sprayed in unit 3 in recent days well exceeds the capacity of its spent-fuel tank.

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Shaw Group, Babcock & Wilcox Join Toshiba to Assist Damaged Japanese Nuclear Plant

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Two prominent members of America's nuclear industry will join Toshiba in efforts to stabilize and remediate accidents at Japan's Fukushima Daiichi nuclear plant.

Toshiba has been working closely with a number of Japanese companies to restore power and offer expertise to the plant that has suffered multiple reactor crises following a magnitude 9 earthquake March 11. At the request of the Japanese government and plant owner Tokyo Electric Power Co., Toshiba has provided more than 100 engineers to assist at Fukushima Daiichi and nearby Fukushima Daini, according to a company release.

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U.S. Nuclear Power Plant Maps and Directions

Are you working on one or more of the 45 outages this spring? Do you have directions to the plant? Do you need to find the closest hotels around the plant? Check out the Nuclear Plants Section on Nuclear Street. We have dedicated plant pages that provide maps, directions, news, weather, and other useful information for every plant in the U.S.! We also have special outage rates for select hotels at Turkey Point and Palo Verde. This is great resource for the travelling contractor, visiting supplier, and/or prospective new employee.

Nuclear Street Buyers Guide - Get to know your customers!

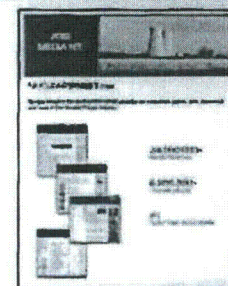
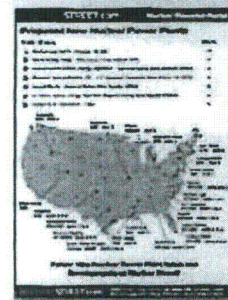
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| ➤ <u>Nuclear Plant Instructor (I&C)</u> | Southern Nuclear Company |
| ➤ <u>System Engineer, Components (B) (Steam Turbines)</u> | Tennessee Valley Authority |
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| ➤ <u>NSSS System Engineer (B)</u> | Tennessee Valley Authority |
| ➤ <u>QA Inspectors - Active L or O Clearance - IMMEDIATE NEED</u> | Bartlett Services |
| ➤ <u>Project Manager</u> | ENERCON |
| ➤ <u>Health Physicist (B)</u> | Tennessee Valley Authority |
| ➤ <u>Program Manager, NG Heavy Equipment</u> | Tennessee Valley Authority |
| ➤ <u>Engineering Systems Technician</u> | Los Alamos National Laboratory |

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From: Nuclear Power Industry News

States Sue Over On-Site Waste Storage

Attorneys general from New York, Connecticut and Vermont announced Tuesday that they plan to sue the Nuclear Regulatory Commission over a recent ruling on waste storage at nuclear plants.

Specifically, they object to an NRC rule issued in late December that allows plants to keep spent fuel on site for 60 years after they close, as opposed to 30 years under previous law.
[Read More>>>](#)

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This message was sent to ats1@nrc.gov from:

Email Marketing by

Woodruff, Gena

From: Howell, Linda
Sent: Wednesday, March 23, 2011 2:29 PM
To: Maier, Bill; Turtill, Richard; OST05 Hoc; LIA04 Hoc; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Erickson, Randy; Browder, Rachel
Cc: Howell, Art; Collins, Elmo
Subject: RE: Modeling Results from DOE Publicly Posted

This information is available to the public via the DOE blog site.

From: Maier, Bill
Sent: Wednesday, March 23, 2011 10:10 AM
To: Turtill, Richard; OST05 Hoc; LIA04 Hoc; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Erickson, Randy; Browder, Rachel
Cc: Howell, Linda; Howell, Art; Collins, Elmo
Subject: FW: Modeling Results from DOE Publicly Posted

Here is what DOE is posting based on the AMS flyovers.

Bill Maier

From: Hartson, Sarah [<mailto:sarah.hartson@oak.doe.gov>]
Sent: Wednesday, March 23, 2011 9:20 AM
To: Lee.Shin@calema.ca.gov; Maier, Bill; Jerold.fenner@hhs.gov; Robberson.Bill@epamail.epa.gov; Lusk, Jeff
Cc: NITOPS; Gipson, Anthony
Subject: Modeling Results

Guys, Please follow the link below for the latest press release from DOE on modeling efforts in Japan. Thanks, Sarah

www.energy.gov/japan2011

Sarah Hartson
Regional Response Coordinator
RAP Region 7
NNSA/Livermore Site Office
Operations Management
Ph: (925) 423-3250
Fax: (925) 422-2832
Cell: (b)(6)
Cell (Blackberry): (b)(6)
Pager: (b)(6)

Sabisch, Andrew

From: Sabisch, Andrew
Sent: Wednesday, March 23, 2011 2:38 PM
To: RST01 Hoc
Subject: Possible Technical Contact in RI

I was attending a class in Region I on Monday and Tuesday and one of the students in the class - Jim Noggle - had worked for General Electric prior to joining the NRC and had been at the Fukushima Daiichi site as part of his work function on Unit's 1 and 3. I am certain you are being inundated with requests to support the efforts in Japan but in talking with Jim throughout the two days, he has a great deal of knowledge not only about the plant itself but the utility company (Tokyo Electric Power Company) through his time spent in-country with GE. He's insight may be of value simply through discussions with him when there is a lull in the Ops Center or if additional technical assistance / input is needed.

His contact information is James.Noggle@nrc.gov or (610) 337-5063

For your consideration

Andy Sabisch

=====

Andrew T. Sabisch
U.S. Nuclear Regulatory Commission
Senior Resident Inspector
Oconee Nuclear Station
7812B Rochester Highway, Seneca, SC 29672
(O) 864-873-3001 / (C) (b)(6) / (H) (b)(6)

Wert, Leonard

Subject: FW: Timeliness of TI on Follow-Up of Japan Events
Location: Bridge Line : 888-324-7516 Pass Code: (b)(6)
Start: Wed 3/23/2011 3:00 PM
End: Wed 3/23/2011 3:30 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Grobe, Jack

(b)(5)

Len

-----Original Appointment-----

From: Grobe, Jack
Sent: Tuesday, March 22, 2011 4:35 PM
To: Grobe, Jack; Kobetz, Timothy; Westreich, Barry; Lew, David; ODaniell, Cynthia; Lee, Pamela; Wert, Leonard; Pederson, Cynthia; Tomczak, Tammy; Howell, Art; Owen, Lucy
Subject: Timeliness of TI on Follow-Up of Japan Events
When: Wednesday, March 23, 2011 3:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Bridge Line : 888-324-7516 Pass Code: (b)(6)

When: Wednesday, March 23, 2011 3:00 PM-3:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Bridge Line : 888-324-7516 Pass Code: (b)(6)

Note: The GMT offset above does not reflect daylight saving time adjustments.

~~*~*~*~*~*~*~*~*

This meeting was requested by Jack Grobe and was scheduled by Shari Cohen on March 22, 2011 at 4:34 p.m. (301) 415-1270.

Mendez-Gonzalez, Sandra

From: Rich, Daniel
Sent: Wednesday, March 23, 2011 5:17 PM
To: Hoeg, Tim; Sanchez, Steven; Morrissey, Thomas; Reyes, Rogerio; Childs, Natasha; Stewart, Scott; Barillas, Martha
Cc: Ninh, Son; Mendez-Gonzalez, Sandra
Subject: FW: TI

Folks:

Rudy had a good comment this morning during discussion of this TI – he recalled an excellent Resident Inspector finding at Crystal River some time ago. Apparently the common diesel fuel oil fill connection is below flood level at CR, and relies (or used to rely) on a gasket in order to keep water out of the diesel fuel tanks in case of flood. The inspector did the obvious of putting his hand on the cap and wiggling it – it wiggled, and the resulting investigation found the gasket was not functional. Potentially could result in water intrusion into the diesel fuel tanks during a flood.

Great perspective of some common sense thinking and inspection on flood vulnerabilities.

Dan

From: Croteau, Rick
Sent: Tuesday, March 22, 2011 8:06 AM
To: R2DRP_ALL
Subject: TI

FYI, you may have seen the following:

The New York Times (3/22, A8, Wald, 1.01M) reports NRC's Executive Director for Operations R. William Borchardt "said Monday that the nuclear crisis in Japan did not warrant any immediate changes at American nuclear plants," though he said the resident inspectors "at each site have been told to double-check that emergency equipment and precautions mandated years ago were still in place, including temporary hoses and fittings and other last-ditch backup equipment." In a briefing to the Commission, Borchardt said plant RIs were asked to ensure that plant operators knew where the equipment and materials were, and "make sure they haven't fallen into disuse because they haven't been used."

NRR has been working with the regions to issue a TI to address this and it should be out shortly with completion by June 30, 2011.

More to come.

Thanks,

Rick

Woodruff, Gena

From: LIA04 Hoc
Sent: Wednesday, March 23, 2011 6:33 PM
To: LIA08 Hoc; LIA06 Hoc; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena
Cc: OST05 Hoc; LIA04 Hoc; Piccone, Josephine; Jackson, Deborah; Easson, Stuart; Flannery, Cindy; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Subject: FYI - Trace amounts of I-131 in rainfall samples of Eastern plants

The HQs Operations Center (PMT and LIA teams) are working on a plan of action regarding confirmed samples of trace amounts of I-131 at three northeastern nuclear power plants – Ginna (NY), Nine Mile Point (NY), and Millstone (CT). We suspect that the info or news of positive samples may be released to the public ahead of the federal government. EPA has been contacted. NEI has agreed to collect the data from licensees and provide the data to NRC.

The ET requested that we hold off on any communications on this issue outside of the NRC until further notice.

Travick, Vanette

From: McCree, Victor
Sent: Wednesday, March 23, 2011 6:54 PM
To: Blamey, Alan; Moorman, James
Cc: Casto, Chuck
Subject: Re: A. Blamey in Japan.

That's great to hear - thanks! Do good things and take care of yourself.

Let us know if/how we can be of assistance.

Vic

This email is being sent from an NRC Blackberry device.

From: Blamey, Alan
To: Moorman, James; McCree, Victor
Sent: Wed Mar 23 18:45:40 2011
Subject: A. Blamey in Japan.

FYI...

I made is safely to Japan and am currently with the Japan Team in the Embassy.

Seymour, Deborah

From: Nextgov.com Newsletters [nextgov@gove-media.com]
Sent: Thursday, March 24, 2011 5:31 AM
To: Seymour, Deborah
Subject: Nextgov Today -- March 24, 2011

THURSDAY, MARCH 24, 2011

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- Wyden seeks to clarify when government can track mobile data
- 'Ludicrous' Defense contract keeps Reserve physicians from treating troops, congressman says
- Wisconsin reps try to derail VA/Defense open source health records system
- Judge rejects Google Books settlement
- U.S. looks to safeguard medical isotopes from terrorists
- Half the Afghanistan and Iraq veterans treated by VA receive mental health care

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ARTICLES

- **Japanese radiation levels could have triggered larger evacuation area under U.S. guidelines**
BY WILLIAM MATTHEWS

Radiation levels in some unevacuated areas around Japan's crippled Fukushima Dai-ichi nuclear power plant were high enough to trigger "protective action," likely an evacuation, under U.S. radiation exposure guidelines.

Full story: http://www.nextgov.com/nextgov/ng_20110323_4158.php?oref=rss?zone=NGtoday

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- **Senators miffed over drunk driver apps**
BY JULIANA GRUENWALD, NATIONAL JOURNAL

Drunk and want to avoid the police? There's an app for that, and Congress doesn't like it.

Full story: http://www.nextgov.com/nextgov/ng_20110323_9164.php?oref=rss?zone=NGtoday

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- **Wyden seeks to clarify when government can track mobile data**
BY ALIYA STERNSTEIN

Forthcoming proposed restrictions on government's ability to track the location of possible criminal suspects through mobile devices could have the unintended consequence of deterring federal authorities from legally using such location-based data to save lives, say law enforcement technology experts.

Full story: http://www.nextgov.com/nextgov/ng_20110323_8085.php?oref=rss?zone=NGtoday

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- **'Ludicrous' Defense contract keeps Reserve physicians from treating troops, congressman says**

Travick, Vanette

From: McCree, Victor
Sent: Thursday, March 24, 2011 6:51 AM
To: Munday, Joel
Cc: Wert, Leonard
Subject: Fw: Today's Kick off Meeting
Attachments: Task Force Kick Off Meeting.docx

Joel,

See below/attached. If asked to lead a working group, is there a particular targeted technical issue(s) you'd prefer to lead?

Vic

This email is being sent from an NRC Blackberry device.

From: Virgilio, Martin
To: Miller, Charles; Grobe, Jack; Holahan, Gary; (b)(6); Sanfilippo, Nathan
Cc: Borchardt, Bill; Weber, Michael; Ash, Darren
Sent: Thu Mar 24 05:33:58 2011
Subject: Today's Kick off Meeting

All

Attached is a one pager I developed to help guide today's kick off meeting for Task Force being chartered to respond to the Tasking Memo on actions following the events in Japan.

Marty

Task Force Kick Off Meeting

(b)(5)

Ellis, Kevin

From: Sabisch, Andrew
Sent: Thursday, March 24, 2011 6:58 AM
To: Bartley, Jonathan; Rapp, Curtis; Stamm, Eric; Ellis, Kevin; Ottenberg, Geoffrey; Hamman, Joyce
Subject: Interesting link to Japan issues

You may have seen this site put together by the NY Times showing areas hit by the earthquake & tsunami in a rather unique before-and-after format (you slide a bar across the photos and see what the change actually was on aerial photos). They show the affected nuclear site as well.

If you have not seen the site, here is the link

<http://www.nytimes.com/interactive/2011/03/13/world/asia/satellite-photos-japan-before-and-after-tsunami.html?src=ISMR HP LO MST FB>

Andy

=====
Andrew T. Sabisch
U.S. Nuclear Regulatory Commission
Senior Resident Inspector
Oconee Nuclear Station
Seneca, SC 29678
(O) 864-882-6927/6928
(F) 864-882-0189
(C) (b)(6)

Hartland, David

From: GovExec.com newsletters [news@get.govexec-media.com]
Sent: Thursday, March 24, 2011 7:32 AM
To: Hartland, David
Subject: GovExec Today: IRS in the wrong places; USPS pay; Curbing improper payments

GOVERNMENT EXECUTIVE.com Today

THURSDAY, MARCH 24, 2011

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HEADLINES

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2. **Cracking down on improper payments requires a fine balance, panelists say**
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7. **From Nextgov.com: Wyden seeks to clarify when government can track mobile data**
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9. **Fedblog: A Lack of Fiscal Leadership**
10. **Today's column: Pay and Benefits Watch**
11. **The Earlybird: Today's headlines**
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Cybersecurity Report: Updates on the battle to protect data and systems

Check out Nextgov's cybersecurity blog delivering breaking news and insights on federal cybersecurity efforts. **Don't miss the latest cybersecurity updates [click here!](#)**

1. **IG faults locations of taxpayer assistance centers**

By Robert Brodsky

IRS field facilities not serving optimal number of return filers who have questions, says Treasury watchdog.

Full story: http://www.govexec.com/story_page.cfm?articleid=47399&dcn=e_gvet

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2. **Cracking down on improper payments requires a fine balance, panelists say**

By Kellie Lunney

Government officials discuss challenges agencies face in juggling oversight and expediency.

Full story: http://www.govexec.com/story_page.cfm?articleid=47401&dcn=e_gvet

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3. Lawmakers question pay for USPS employees

By Emily Long

House committee plans hearing to scrutinize postal workforce costs and new union contract.

Full story: http://www.govexec.com/story_page.cfm?articleid=47400&dcn=e_qvet

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4. Slideshow: Military March Madness

When military service members head overseas, they take basketball with them.

Full story: http://www.govexec.com/story_page.cfm?articleid=47404&dcn=e_qvet

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5. Japanese radiation levels could have triggered larger evacuation area under U.S. guidelines

By William Matthews

The U.S. rules call for "protective action," and while that can mean "sheltering indoors" during a small event, it likely would involve evacuation for a prolonged radiation release, nuclear agency says.

Full story: http://www.govexec.com/story_page.cfm?articleid=47407&dcn=e_qvet

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6. Five days into Operation Odyssey Dawn, costs mounting

By Megan Scully, National Journal

The Libya operation could cost billions -- and require the Pentagon to request emergency funding from Congress.

Full story: http://www.govexec.com/story_page.cfm?articleid=47398&dcn=e_qvet

Hamilton, Ruben

From: Hamilton, Ruben
Sent: Thursday, March 24, 2011 7:38 AM
To: Lake, Louis
Attachments: ENGNEWS01_1300936513P.pdf

Text summary from Japanese news.

Earthquake Report - JAIT

No.26

Status of Fukushima Daiichi nuclear power station as of 12:00, March 24, 2011

Here is information regarding the status of Fukushima Daiichi nuclear power station from the news reports aired by NHK in this morning of March 24.

- Water is being injected to the reactor vessel at Unit-1, given the situation that the pressure is high inside the reactor pressure vessel. TEPCO decided to decrease injection volume based on its analysis that pressure inside the containment vessel increased as a result of increasing injection volume to the reactor vessel. Core cooling function has been enhanced at Unit-1 since March 23 after the core temperature exceeded design value of 302°C and reached almost 400°C. (11:30, March 24)
- All works at Unit-1, 2, 3 and 4 were suspended after black smoke rose from unit-3. TEPCO resumed water injection to the spent fuel pool of Unit-3 after 05:30 on March 24 after calming down the situation. (10:06, March 24)
- Steam like substance rose from all unit-1, 2, 3 and 4 were observed from NHK's helicopter. This is the first time that steam like substance rose from Unit-1. (09:30, March 24)

End

Cobey, Eugene

From: Thomas, MaryLynne
Sent: Thursday, March 24, 2011 8:46 AM
To: Sykes, Marvin; Gody, Tony; Cobey, Eugene
Subject: FYI regarding Areva's role regarding the Japanese situation

From: LINK Bob (AREVA) [<mailto:Robert.Link@areva.com>]
Sent: Wednesday, March 23, 2011 5:53 PM
To: MANNING Calvin (AREVA); Thomas, MaryLynne
Subject: RE: Plant status for 3/23/2011

Mary, we have had numerous inquiries regarding the Japanese situation, both public and commercial. We have tried to be responsive and keep some accurate and rational information flowing. We have also sent support equipment from the US, France and Germany. We also have sent humanitarian aid in the form of money 1 million euros to the Japanese Red Cross and goods via charter flight from France. We also appreciate the Agencies level head and professional approach to the event.

Bob Link
Manager EHS&L, Richland Site
AREVA NP Inc.
2101 Horn Rapids Road
Richland, WA 99354-5102
Work 509-375-8409
Cell (b)(6)

From: MANNING Calvin (FE/FL)
Sent: Wednesday, March 23, 2011 8:07 AM
To: Thomas, MaryLynne
Cc: LINK Bob (FE/FL)
Subject: Plant status for 3/23/2011

This weeks plant status.

cal

Woodruff, Gena

From: LIA04 Hoc
Sent: Thursday, March 24, 2011 9:52 AM
To: Piccone, Josephine; Jackson, Deborah; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tift, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Subject: FW: Japan EQ and Tsunami Press Guidance - 03.24.11
Attachments: 110324 0830 EDT Japan EQ Talking Points.doc

FYI: Forwarding the U. S. Government Talking Points from the Office of U.S. Foreign Disaster Assistance.

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Thursday, March 24, 2011 8:57 AM
To: LIA01 Hoc; LIA02 Hoc; LIA07 Hoc; LIA08 Hoc; LIA12 Hoc; LIA04 Hoc; LIA11 Hoc; Harrington, Holly; McIntyre, David; Burnell, Scott; ET07 Hoc
Subject: FYI: Japan EQ and Tsunami Press Guidance - 03.24.11

Subject: Japan EQ and Tsunami Press Guidance - 03.24.11

Dear all,

Please find attached today's updated press guidance.

Best regards,

Helen Ho, Lily Frey, and Patricia Shea
Information Coordinators
Pacific Tsunami and Japan Earthquake Response Management Team
RMTPACTSU_INC@ofda.gov
202-712-0039

From: Sanders, Carleen
To: Reece, James
Subject: FW: Daily Status 03/23/2011 and some news on Iodine
Date: Thursday, March 24, 2011 9:53:26 AM
Attachments: 03-23-11.docx

RI response to the offsite iodine collection

From: Setzer, Thomas
Sent: Wednesday, March 23, 2011 3:51 PM
To: Dunham, Katrina; Keighley, Elizabeth; Dodson, Douglas; Jackson, Donald; Spindler, David; Rich, Sarah; Smith, Brian; Schneider, Max; Krafty, James; Haagensen, Brian; Shaffer, Steve; Sanders, Carleen; Guzman, Richard; Kim, James; Ziedonis, Adam
Subject: Daily Status 03/23/2011 and some news on Iodine

Some licensees (like Millstone and Kewaunee) have implemented sampling of rainwater for iodine. If your licensee is conducting testing for iodine to determine if the events in Japan are affecting their results, please communicate those results to the region. Pam Henderson is tracking these results for our plants and assessing their significance.

Attached is the daily status.

TOM

Mendez-Gonzalez, Sandra

From: Ninh, Son
Sent: Thursday, March 24, 2011 9:54 AM
To: Rich, Daniel; Morrissey, Thomas; Reyes, Rogerio; Childs, Natasha; Hoeg, Tim; Sanchez, Steven; Stewart, Scott; Barillas, Martha; Schroer, Suzanne
Cc: Mendez-Gonzalez, Sandra
Subject: RE: TI 183

BR 3 Staff,

I went to the 9:15 DRP morning meeting and I would like to clarify the followings:

The TI 183 inspection is required to be completed by **April 29** and the inspection report is required to be issued **by May 13**. If the licensee requested a copy of TI 183 you can provide them a copy. Branch 7, support staff will generate an inspection report number to all sites and will work with HQs to come up with the standard inspection report. Please let us know who will do the TI 183 at your site and provide feedback any potential impacts at your site during the refueling outage.

Son Ninh

From: Rich, Daniel
Sent: Thursday, March 24, 2011 7:34 AM
To: Morrissey, Thomas; Reyes, Rogerio; Childs, Natasha; Hoeg, Tim; Sanchez, Steven; Stewart, Scott; Barillas, Martha; Schroer, Suzanne
Cc: Ninh, Son; Mendez-Gonzalez, Sandra
Subject: TI 183

Good Morning All:

Regarding TI 183, followup on issues raised by events in Japan:

May 13 is current date in TI, Inspections complete and stand alone rpts issued.

Template for rpts under development. Discussion still ongoing on how to resolve issues raised during inspection.

Most likely we will have a Region wide brief on expectations for completion of the TI.

Heads Up – plan for about 40 hours inspection. Plan now for who will conduct the TI and be prepared to discuss later today.

Thanks
Dan

Wert, Leonard

From: Wert, Leonard
Sent: Thursday, March 24, 2011 10:03 AM
To: Shannon, Mel
Subject: RE: ~~FOR OFFICIAL USE ONLY~~ - USNRC Earthquake/Tsunami SitRep 3/24/2011 - ~~FOR OFFICIAL USE ONLY~~

Mel,

I was reading that as RPV currently 230 degrees, with some lag - RCS temp lower, so pressure considerably lower....Len

From: Shannon, Mel
Sent: Thursday, March 24, 2011 9:49 AM
To: Wert, Leonard
Subject: RE: ~~FOR OFFICIAL USE ONLY~~ - USNRC Earthquake/Tsunami SitRep 3/24/2011 - ~~FOR OFFICIAL USE ONLY~~

Len, you probably already know, but the pressure and temperatures provided for unit 1 don't work. 400 degrees C is 752 degrees F, pressure would be at least 3200 psi. There would be no way to get water into the core with the fire pumps. Data looks funny. Is there actually any water in the core???

From: Wert, Leonard
Sent: Thursday, March 24, 2011 7:51 AM
To: R2MAIL; R2_RESIDENT SITES
Subject: ~~FOR OFFICIAL USE ONLY~~ - USNRC Earthquake/Tsunami SitRep 3/24/2011 - ~~FOR OFFICIAL USE ONLY~~

~~FOR OFFICIAL USE ONLY~~

Attached, for your information, is the 0600, March 24, 2011, NRC situation report regarding the impacts of the earthquake/tsunami event, (yellow) highlighted to show several noteworthy status items. This document is considered **FOR OFFICIAL USE ONLY** and is not to be distributed outside the agency.

Len

~~FOR OFFICIAL USE ONLY~~

Covert, Nicole

From: NEI SmartBrief [nei@smartbrief.com]
Sent: Thursday, March 24, 2011 10:35 AM
To: Covert, Nicole
Subject: March 24, 2011 - Efforts to stabilize Fukushima nuclear plant resume

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News Roundup

Efforts to stabilize Fukushima nuclear plant resume

Efforts resumed today to restore electricity and cooling systems at the stricken Fukushima Daiichi nuclear plant in Japan as radiation levels continued to increase, officials said. Plant operator Tokyo Electric Power said it could restart Unit 3's cooling system as early as today. Power has also been restored at Unit 1's control room. [The Wall Street Journal](#) (3/24) Share: [in](#) [f](#)

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TVA's nuclear plants can handle natural disasters, exec says

The Tennessee Valley Authority's nuclear plants would have withstood the earthquake and tsunami that damaged Tokyo Electric Power's facilities in Japan, said Preston Swafford, TVA's chief nuclear officer. "The Japanese reactors handled an earthquake 10 times bigger than they were designed for," Swafford said. TVA, meanwhile, is continuing the development of nuclear plants in Alabama and Tennessee. [The Daily Sentinel](#) (Scottsboro, Ala.) (3/23) Share: [in](#) [f](#) [t](#)




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NRC extends Vermont Yankee license

Entergy's Vermont Yankee nuclear plant is capable of operating through 2032 after the Nuclear Regulatory Commission extended the plant's license for 20 years. "The Yankee license-renewal application has had more than five years of review, a safety evaluation, an environmental assessment and a hearing that lasted for several years," said NRC spokesman Neil Sheehan. Vermont's congressional delegation questioned the extension being issued amid the crisis in Japan. [Brattleboro Reformer](#) (Vt.) (3/22) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)




PSEG exec says nuclear is still part of U.S. energy plans

Nuclear power will remain in the U.S. energy portfolio despite the reactor crisis in Japan, said William Levis, president and chief operating officer of PSEG Power. The impact of the crisis on




license-renewal applications and new projects has yet to be established, Levis said. "Obviously some of those economics are impacted by additional regulation that gets put into effect," he added. [The Wall Street Journal/Dow Jones Newswires](#) (3/23) Share:    [E-MAIL](#)

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Maryland officials continue support for nuclear energy

Some of Maryland's elected officials have rallied behind nuclear energy amid the reactor crisis in Japan. People should wait for the crisis to end and be studied before making "snap judgments," said state Rep. Anthony J. O'Donnell. Gov. Martin O'Malley believes nuclear and wind energy are essential to the state's energy future, said Shaun Adamec, a spokesman for the governor. [Southern Maryland Newspapers Online](#) (3/23) Share:    [E-MAIL](#) [RELATED STORIES](#)

▪ Nuclear energy is clean, reliable

Nuclear power is still a clean and reliable source of energy despite the reactor crisis in Japan, writes a Wisconsin newspaper. Hopefully, the editorial board adds, the U.S. learns from the incident and applies those lessons to its facilities. [Star-Observer \(Hudson, Wis.\)](#) (free registration) (3/23) Share:    [E-MAIL](#)



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Policy Watch

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NRC's relicensing procedures need investigation, lawmakers say




Congress should probe the Nuclear Regulatory Commission's license-renewal procedures for nuclear facilities, said Reps. Eliot Engel, D-N.Y., and Nita Lowey, D-N.Y. The lawmakers questioned the capability of aging plants to withstand terrorist attacks or natural disasters. "It is time for the NRC to realize that natural disasters and terrorism are all too real," Engel said. [The Hill/E2 Wire blog](#) (3/23) Share:    [E-MAIL](#) [RELATED STORIES](#)

Nuclear bill reportedly has sufficient backing from Iowa lawmakers

Legislation that would pave the way for the construction of a nuclear plant in Iowa has adequate support from state lawmakers, said state Rep. Chuck Soderberg, who chairs the Iowa House Commerce Committee. The measure would allow MidAmerican Energy to recover from its customers some of the costs of developing a facility. [Quad-City Times \(Davenport, Iowa\)](#) (3/23)

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Rep. Gibson says U.S. must review Japan nuclear crisis

A New York congressman says that before making policy decisions, the U.S. must review the reactor crisis in Japan and guarantee the safety of its 104 nuclear plants. "I think everyone has an interest in understanding what happened in Japan and making sure our plants are safe and, moving forward, that we incorporate the latest in technology, so future plants are state of the art, safe, efficient and clean," Rep. Chris Gibson said at the Saratoga Technology and Energy Park in New York. [The Post-Star \(Glens Falls, N.Y.\)](#) (3/23) Share:    [E-MAIL](#) [RELATED STORIES](#)



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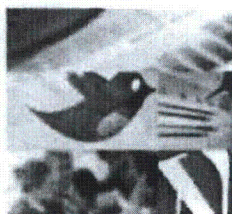
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Research**

5 ways to get employees to live the company's values

Make sure employer values are being demonstrated by employees every day by creating a supportive, encouraging environment and allowing front-line employees to make more decisions, writes Ann Rhoades. "The results you want can be built on shared, strategic values and financial responsibility," writes Rhoades, the author of "Built on Values: Creating an Enviably Culture that Outperforms the Competition." [SmartBrief/SmartBlog on Leadership \(3/23\)](#) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

Failures should be cheap and goals should be audacious

Companies that try to eliminate failure really eliminate only their ability to adapt and grow, argues Umair Haque. "A system that fails to fail lacks the capacity to evolve -- much less to gain resilience, or, above all, wisdom," Haque writes. To create a corporate culture that can thrive on failure, he advises focusing on finding ways to change direction swiftly and cheaply when things go wrong, and being sure to aim high enough that your failures are worthwhile. [Harvard Business Review online/Umair Haque blog \(3/21\)](#) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)



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Relying on luck and good intentions when developing your social-media approach can leave you with disparate, ineffective initiatives. Get the data you need to formulate a savvy social-media strategy that produces measurable results. [Check out SmartBrief's State of Social Media for Business.](#)

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International

Chubu Electric postpones construction of Japanese reactor

Japan's Chubu Electric Power will delay the construction of a sixth reactor at its Hamaoka

nuclear facility from 2015 to 2016, said Akihisa Mizuno, the company's president. "As our top priority, we must ensure the safety [of the Hamaoka plant] by examining lessons" from the Fukushima Daiichi plant incident, Mizuno said. [JapanToday.com/Kyodo News \(Japan\)](http://JapanToday.com/Kyodo%20News%20(Japan)) (3/24)

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SmartQuote



It is better to debate a question without settling it than to settle a question without debating it."

--Joseph Joubert,
French essayist

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This SmartBrief was created for **Nicole.Coovert@nrc.gov**

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Lead Editor: [Bryan McBournie](#)

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From: McCoy, Gerald
To: Bonsor, Brian; Hamilton, Ruben; Reece, James; Sanders, Carleen
Subject: FW: Summary of Sample Results at Nine Mile Point and Ginna
Date: Thursday, March 24, 2011 11:31:12 AM

I guess the issue is more widespread than I originally thought.

Gerry

Gerald J. McCoy
Chief, Reactor Projects Branch 5
Division of Reactor Projects, Region 2
United States Nuclear Regulatory Commission
Office: 404-997-4551
Cell: (b)(6)

-----Original Message-----

From: Bernardo, Robert
Sent: Thursday, March 24, 2011 9:42 AM
To: McCoy, Gerald
Subject: FW: Summary of Sample Results at Nine Mile Point and Ginna

Good morning,

Regarding the reports from North Anna of low levels of I-131 in Rainwater samples:

Ginna and Nine Mile Point have seen small levels of I-131 - see the e-mail traffic below.

Also, region III and IV have seen I-131 at the sites below:

Region 3 & 4 Sites – (Low Level) Detectable Readings of I-131 & CS-137 from Japan's Reactor Event

- I-131 - Kewaunee, SONGS, Diablo Canyon, & CGS
- CS-137 – SONGS

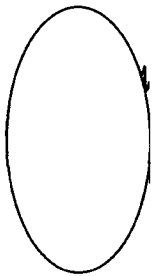
I know that Pam Henderson is coordinating any activities related to the I-131 seen at Region I plants.

Just wanted to share what I knew, hope this helps.

Bob Bernardo
Reactor Systems Engineer
US Nuclear Regulatory Commission
NRR/DIRS/IOEB
Mail Stop: O-7C02A
301-415-2621
Robert.Bernardo@nrc.gov

From: Pickett, Douglas
Sent: Wednesday, March 23, 2011 8:16 AM
To: Salgado, Nancy
Cc: Guzman, Richard
Subject: FW: Summary of Sample Results at Nine Mile Point and Ginna

Small amounts of Iodine-131 have been detected at the Nine Mile Point and Ginna sites this week.



While site personnel believe it is fallout from the events in Japan, the licensee has not informed the public or the state of New York as they continue their investigation of the source. Please note in the email below that the term outfall was erroneously used. The email should have stated that the contamination was observed in storm-drains. According to Glenn Dentel, Iodine-131 has only been observed at Diablo Canyon and the two New York sites below.

-----Original Message-----

From: Henderson, Pamela
Sent: Wednesday, March 23, 2011 8:45 AM
To: Bernardo, Robert
Subject: FW: Summary of Sample Results at Nine Mile Point and Ginna

-----Original Message-----

From: Henderson, Pamela
Sent: Wednesday, March 23, 2011 8:44 AM
To: Hoc, PMT12
Cc: Weerakkody, Sunil; Wilson, Peter; Rogge, John; Furia, Joseph
Subject: RE: Summary of Sample Results at Nine Mile Point and Ginna

Tim,

The licensee does not believe that the iodine resulted from licensed activities. Nine Mile and Ginna are the only plants that have thus far reported elevated levels. We have not coordinated with Region III, we were awaiting ET request for additional information before taking further action.

Who in FSME (MSSA?) is the contact for collection of radiation data in the US?

Thanks,

Pam

-----Original Message-----

From: Hoc, PMT12
Sent: Tuesday, March 22, 2011 8:10 PM
To: Henderson, Pamela
Cc: PMT03 Hoc
Subject: RE: Summary of Sample Results at Nine Mile Point and Ginna

Pam

Don briefed the ET. Several questions were generated.

Is the licensee certain that the iodine did not result from licensed activities?
Are other plants in Region I reporting similar conditions following the recent rains?
Have you coordinated with Region III to see if their plants are reporting similar conditions?

OSTP is responsible for collecting radiation data within the US as a result of incident. The ET is considering mechanisms to disseminate information to licensees including voluntary reporting of data.

After you respond to the questions, PMT will engage the ET for further action.

Tim Harris
PMT, PAAD

-----Original Message-----

From: Henderson, Pamela
Sent: Tuesday, March 22, 2011 2:33 PM
To: Rogge, John; Dentel, Glenn
Cc: Furia, Joseph; Hoc, PMT12; Bernardo, Robert
Subject: RE: Summary of Sample Results at Nine Mile Point and Ginna

John,

My first question would be what are background readings normally at the plants (onsite) for I-131? Is the licensee taking these samples because of the incident in Japan?... or do they normally take samples of rainwater and screen for I-131?

From: Rogge, John
Sent: Tuesday, March 22, 2011 2:21 PM
To: HOO Hoc
Cc: Henderson, Pamela
Subject: FW: Summary of Sample Results at Nine Mile Point and Ginna

Please forward this to the PMT. Pam Henderson discussed the NMP findings earlier in the day. Here is some data regarding the observation.

From: Dentel, Glenn
Sent: Tuesday, March 22, 2011 2:14 PM
To: Henderson, Pamela; Roberts, Darrell; Clifford, James; Wilson, Peter; Weerakkody, Sunil; Rogge, John
Cc: Patel, Amar; Dempsey, Douglas; Kolaczyk, Kenneth; Hunegs, Gordon; Casey, Lauren; Screnci, Diane; Sheehan, Neil; McNamara, Nancy; Tifft, Doug; Pickett, Douglas; Bellamy, Ronald; Perry, Neil; Ibarrola, Sherlyn; Cronk, Kevin
Subject: Summary of Sample Results at Nine Mile Point and Ginna

The following environmental sample results were observed at Nine Mile Point and Ginna in upstate New York.

Date	Site	Location	Activity
March 21	Nine Mile Point	Unit 1 outfall	19.1 pCi/l
March 21	Nine Mile Point	Unit 2 outfall	8.6 pCi/l
March 21	Nine Mile Point	Oswego Co. Airport	approximately 10 pCi/l (offsite sample)

Confirmatory samples

March 22	Nine Mile Point	Unit 1 outfall	18 pCi/l
March 22	Nine Mile Point	Unit 2 outfall	10.3 pCi/l
March 22	Nine Mile Point	Oswego Co. Airport	9.7 pCi/l (offsite sample)
March 22	Ginna	Orchard area rainwater	26.8 pCi/l (owner control area)

The licensees are evaluating these results and potential source. No activities onsite likely to have caused the readings. Additional sampling is ongoing.

Glenn Dentel

Alexander, Sarah

From: Heath, Shawanna
Sent: Thursday, March 24, 2011 11:37 AM
To: Alexander, Sarah
Subject: RE: Catching Up on the NRC Blog

You are welcome.

From: Alexander, Sarah
Sent: Thursday, March 24, 2011 10:26 AM
To: Heath, Shawanna
Subject: RE: Catching Up on the NRC Blog

Thanks!

From: Heath, Shawanna
Sent: Thursday, March 24, 2011 8:34 AM
To: Alexander, Sarah
Subject: RE: Catching Up on the NRC Blog

Sarah,

I have not found the fix to the error, but I found another link to the video. Please try the link below.

Thank you,

Shawanna Heath

<http://democrats.energycommerce.house.gov/index.php?q=hearing/joint-hearing-on-the-fy-2012-department-of-energy-and-nuclear-regulatory-commission-budgets>

From: Alexander, Sarah
Sent: Thursday, March 24, 2011 7:54 AM
To: Heath, Shawanna
Subject: FW: Catching Up on the NRC Blog

Feed: U.S. NRC Blog
Posted on: Friday, March 18, 2011 1:48 PM
Author: Moderator
Subject: Catching Up on the NRC Blog

First, let me thank everyone who has been visiting this blog and leaving comments. We appreciate your interest. I apologize for the lack of a post on Thursday and the delay in getting comments posted.

Speaking of comments, we are not posting comments that are suggestions for how the Japanese authorities should be responding to their emergency. The NRC is not responsible for responding to that accident and it's

not appropriate for us to serve as a forum for suggestions – both helpful and impractical.

You may have noticed that we are not replying to many of your comments. This is simply a factor of workload and staffing. We are doing the best we can to continue to communicate the NRC actions related to the Japanese emergency – and NRC actions related to the nuclear power plants in the U.S. To that end, Chairman Jaczko testified before Congress on Wednesday. A transcript is available here: <http://www.nrc.gov/about-nrc/organization/commission/comm-gregory-jaczko/0317nrc-transcript-jaczko.pdf>. A video is also posted here: <http://www.energycommerce.house.gov/hearings/hearingdetail.aspx?NewsID=8329>.

Eliot Brenner
Public Affairs Director

Filed under: General Comments: 1 Add to Facebook! Tweet it! Digg it!

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Bartleman, John

From: Mellen, Larry
Sent: Thursday, March 24, 2011 12:48 PM
To: Bartleman, John; Alexander, Sarah; Alexander, Sarah
Attachments: image001.png

Following, 31.623 to the *power of 0 equals 1*, 31.623 to the *power of 1 equals 31.623* and 31.623 to the *power of 2 equals 1000*. Therefore, an 8.0 on the Richter scale releases 31.623 *times* more energy than a 7.0 and a 9.0 on the Richter scale releases 1000 *times* more energy than a 7.0.

Richter Approximate Magnitude	Approximate TNT for Seismic Energy Yield	Joule equivalent	Example
0.0	15.0 g	63.1 kJ	
0.2	80.3 g (2.83 oz)	337.2 kJ	Large <u>hand grenade</u>
0.5	206.5 g	867.2 kJ	
1.0	476.0 g (1.05 lb)	2.0 MJ	Small construction site blast
1.5	6.6 kg	27.6 MJ	
2.0	15.0 kg	63.1 MJ	
2.5	206.5 kg	867.2 MJ	
3.0	476.0 kg	2.0 GJ	
3.5	6.6 metric tons	27.6 GJ	<u>PEPCON fuel plant explosion, 1988</u>
3.74	9.5 metric tons	40.0 GJ	<u>Explosion at Chernobyl nuclear power plant, 1986</u>
3.79	11.0 metric tons	46.2 GJ	<u>Massive Ordnance Air Blast bomb</u>
4.0	15.0 metric tons	63.1 GJ	
4.3	118.9 metric tons	499.2 GJ	<u>Kent Earthquake (Britain), 2007</u>
4.5	206.5 metric tons	867.2 GJ	<u>Tajikistan earthquake, 2006</u>
			<u>Lincolnshire earthquake (UK), 2008</u>
5.0	476.0 metric tons	2.0 TJ	<u>M_w Ontario-Quebec earthquake (Canada), 2010^{[10][11]}</u> <u>Little Skull Mtn. earthquake (Nevada, USA), 1992</u>
5.5	6.6 kilotons	27.6 TJ	<u>M_w Alum Rock earthquake (California, USA), 2007</u> <u>M_w Chino Hills earthquake (Los Angeles, USA), 2008</u>
5.6	8.1 kilotons	34.0 TJ	<u>Newcastle Earthquake Australia, 1989</u>
6.0	15.0 kilotons	63.1 TJ	<u>Double Spring Flat earthquake (Nevada, USA), 1994</u>
			<u>M_w Rhodes earthquake (Greece), 2008</u>
6.3	118.9 kilotons	499.2 TJ	<u>Christchurch earthquake (New Zealand), 2011</u>
6.4	161.1 kilotons	676.8 TJ	<u>Kaohsiung earthquake (Taiwan), 2010</u>
6.5	206.5 kilotons	867.2 TJ	<u>M_S Caracas earthquake (Venezuela), 1967</u>

			<u>M_W Eureka earthquake (California, USA), 2010</u>
6.6	261.9 kilotons	1.1 PJ	<u>M_W San Fernando earthquake (California, USA), 1971</u>
6.7	309.5 kilotons	1.3 PJ	<u>M_W Northridge earthquake (California, USA), 1994</u>
6.8	357.1 kilotons	1.5 PJ	<u>M_W Nisqually earthquake (Anderson Island, WA), 2001</u>
			<u>Gisborne earthquake (Gisborne, NZ), 2007</u>
6.9	404.8 kilotons	1.7 PJ	<u>M_W San Francisco Bay Area earthquake (California, USA), 1989</u>
			<u>M_W Pichilemu earthquake (Chile), 2010</u>
7.0	476.0 kilotons	2.0 PJ	<u>M_W Java earthquake (Indonesia), 2009</u>
			<u>M_W Haiti earthquake, 2010</u>
7.1	1.5 megatons	6.2 PJ	<u>M_W Messina earthquake (Italy), 1908</u>
			<u>M_W San Juan earthquake (Argentina), 1944</u>
7.2	2.5 megatons	10.6 PJ	<u>M_W Canterbury earthquake (New Zealand), 2010</u>
			<u>Vrancea earthquake (Romania), 1977</u>
7.5	6.6 megatons	27.6 PJ	<u>M_W Baja California earthquake (Mexico), 2010</u>
			<u>M_W Kashmir earthquake (Pakistan), 2005</u>
7.6	8.1 megatons	34.0 PJ	<u>M_W Antofagasta earthquake (Chile), 2007</u>
7.7	9.7 megatons	40.6 PJ	<u>M_W Gujarat earthquake (India), 2001</u>
			<u>M_W Sumatra earthquake (Indonesia), 2010</u>
7.8	11.4 megatons	47.8 PJ	<u>M_W Tangshan earthquake (China), 1976</u>
			<u>M_S Hawke's Bay earthquake (New Zealand), 1931</u>
8.0	15.0 megatons	63.1 PJ	<u>M_S Luzon earthquake (Philippines), 1990</u>
			<u>M_S Mino-Owari earthquake (Japan), 1891</u>
			<u>San Juan earthquake (Argentina), 1894</u>
			<u>San Francisco earthquake (California, USA), 1906</u>
			<u>M_S Queen Charlotte Islands earthquake (B.C., Canada), 1949</u>
			<u>M_W Chinha Alta earthquake (Peru), 2007</u>
			<u>M_S Sichuan earthquake (China), 2008</u>
			<u>México City earthquake (Mexico), 1985</u>
8.1	46.2 megatons	194.0 PJ	<u>Guam earthquake, August 8, 1993^[12]</u>
8.12	50 megatons	210 PJ	<u>Tsar Bomba - Largest thermonuclear weapon ever tested</u>
8.49	200 megatons	840 PJ	<u>Krakatoa 1883</u>
8.5	206.5 megatons	867.2 PJ	<u>M_W Sumatra earthquake (Indonesia), 2007</u>
8.7	309.5 megatons	1.3 EJ	<u>M_W Sumatra earthquake (Indonesia), 2005</u>

8.8	357.1 megatons	1.5 EJ	<u>M_W Chile earthquake, 2010,</u>
9.0	476 megatons	2.0 EJ	<u>M_W Lisbon earthquake (Portugal), All Saints Day, 1755</u>
			<u>M_W Sendai earthquake and tsunami (Japan), 2011</u>
9.02	800 megatons	3.2 EJ	<u>Toba eruption 75,000 years ago; among the largest known volcanic events.</u> ^[13]
9.2	2.5 gigatons	10.6 EJ	<u>M_W Anchorage earthquake (Alaska, USA), 1964</u>
9.3	3.8 gigatons	15.8 EJ	<u>M_W Sumatra-Andaman earthquake and tsunami (Indonesia), 2004</u>
9.5	6.6 gigatons	27.6 EJ	<u>M_W Valdivia earthquake (Chile), 1960</u>
10.0	15.0 gigatons	63.1 EJ	Never recorded
12.25	95.2 teratons	400 ZJ	<u>Yucatán Peninsula impact (creating Chicxulub crater) 65 Ma ago</u> <u>(10⁸ megatons; over 4x10³⁰ ergs = 400 ZJ).</u> ^{[14][15][16][17][18]}
22.7	309.5x10 ²⁷ tons	1.3x10 ³⁹ J	Approximate magnitude of the <u>starquake</u> on the <u>magnetar SGR</u> <u>1806-20</u> , registered on December 27, 2004. ^[19]

Larry S Mellen



Larry Mellen, PhD, Senior Construction Project Inspector
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Atlanta, Georgia 30303-1257

Morris, Eddie

From: Morris, Eddie
Sent: Friday, March 25, 2011 2:07 PM
To: Shaeffer, Scott; Crowe, Eddy; Hardage, David; Rose, Steven; Lighty, Tonya; Chandler, Timothy; Sowa, Jeffrey
Subject: AREVA Japan event timeline power point

I came across a pretty good power point presentation developed by AREVA going through the timeline, design, and systems interaction for the Japan event. Dates in the powerpoint are in the [DAY.Month] format (i.e. March 11th would be 11.3) Time is 24-hour clock time. (22:00 = 10pm).

I put the power point in a folder on our branch G: drive (as it is 4 Megs.)

G:\DRPI\RPB2\HATCH\Japan Timeline Power Point

Eddie D. Morris
NRC Senior Resident Inspector - Hatch
912-367-9881

Wert, Leonard

Subject: FW: Request for Information after Events in Japan
Location: HQ-TWFFN-10A01-40p

Start: Thu 3/24/2011 3:00 PM
End: Thu 3/24/2011 4:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Janney, Margie

Judy,
Heads up, would be good to have someone from DRMA to sit in on this. Len

-----Original Appointment-----

From: Smith, Sharon **On Behalf Of** Janney, Margie

Sent: Thursday, March 24, 2011 11:25 AM

To: Janney, Margie; Nichols, Russell; Sealing, Donna; Paradiso, Karen; Landau, Mindy; Clayton, Kathleen; McDermott, Brian; Morris, Scott; Holahan, Patricia; Erlanger, Craig; Thaggard, Mark; Correia, Richard; Layton, Michael; Wimbush, Andrea; Glitter, Joseph; Nelson, Robert; Howe, Allen; Ruland, William; Bahadur, Sher; Craver, Patti; Mamish, Nader; Mitchell, Linda; Hayden, Elizabeth; Shannon, Valerie; Vietti-Cook, Annette; Champ, Billie; Case, Michael; Richards, Stuart; Gibson, Kathy; Scott, Michael; Coe, Doug; Coyne, Kevin; Parks, Jazel; Powell, Amy; Droggitis, Spiros; Belmore, Nancy; Hirsch, Patricia; Remsburg, Kristy; Pulliam, Timothy; Rodgers, Mary; Whetstone, Jack; Corbett, James; Shields, James; Rich, Thomas; Holonich, Joseph; Boyce, Thomas (OIS); Schaeffer, James; Evans, Michele; Rheame, Cynthia; Boger, Bruce; Grobe, Jack; Givvines, Mary; Uhle, Jennifer; Valentin, Andrea; Dorman, Dan; Matthews, David; Akstulewicz, Frank; Madden, Patrick; Correa, Yessie; Baker, Pamela; Manning, Louis; Coleman, Judy; Travick, Vanette; Holt, BJ; Choe, Jeannie; Hays, Myra; Munroe, Stacey; Holahan, Gary; Dean, Bill; Wert, Leonard; Howell, Art

Cc: Kardaras, Tom; Ordaz, Vonna; Ferrell, Kimberly; McKelvin, Sheila; Mike, Linda; Hart, Ken; Laufer, Richard; Baval, Rochelle; Shea, Pamela; Bates, Andrew; Wright, Darlene; Lewis, Antoinette; Raphael, Mary Jean; Muessle, Mary; Andersen, James; Wagner, Katie; Flanagan, Michelle; Marshall, Jane; Haney, Catherine; Kinneman, John; Kokajko, Lawrence; Doolittle, Elizabeth; Ford, William; Smith, James; Smith, Shawn; White, Bernard; Bailey, Marissa; Davis, Jack; Mohseni, Aby; Tschiltz, Michael; Weaver, Doug; Eitrem, Anthony; Hiltz, Thomas; Smith, Brian; Habighorst, Peter; Johnson, Robert; Campbell, Larry; Silva, Patricia; Rivera-Lugo, Richard

Subject: Request for Information after Events in Japan

When: Thursday, March 24, 2011 3:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: HQ-TWFFN-10A01-40p

Hi Everyone,

The agency is receiving a significant increase in requests for information after the events in Japan. Your help is needed to provide solutions as to how we can expeditiously complete the requests without significantly impacting mission-related work.

Some topics which we'd like to discuss include:

A quick FOIA request overview

A quick Congressional Inquiry overview

What is considered due diligence in searching for the requested material?

Can OIS provide an automated enterprise search for the pertinent information needed; if so, what are the search criteria?

Please forward this meeting notice to appropriate staff.

Please let me know if you have any questions.

Thanks!

-Margie

Woodruff, Gena

From: Piccone, Josephine
Sent: Thursday, March 24, 2011 4:00 PM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Haral; Maier, Bill; Browder, Rachel; Erickson, Randy; Janda, Donna; Orendi, Monica; Lynch, James
Cc: Heck, Jared; Lew, David; Wert, Leonard; Howell, Arthur; Lorson, Raymond; Boland, Anne; Caniano, Roy; Lewis, Robert; Moore, Scott; Jackson, Deborah; Turtill, Richard; Virgilio, Rosetta
Subject: APPRECIATION

Dear RSLOs and RSAOs,

I want to express my appreciation for all that you have done thus far, and will continue to do in the days and weeks ahead, to relay information to the States about NRC's response to the Japanese event. As the primary day-to-day contacts, you play a key communications role, as you work closely with NRC Headquarters staff to provide clear and appropriate information to the States. I also want to acknowledge the communication challenges this event posed and continues to pose, and want to commend your professionalism, patience and dedication while carrying out your responsibilities.

Once again, thanks to each of you for your own, personal efforts during this time. It is certainly noticed.

Josie

Josephine M. Piccone, Ph.D.
Director, Division of Intergovernmental Liaison and Rulemaking
Office of Federal and State Materials and Environmental Management Programs (FSME)
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
(301) 415-8429

Woodruff, Gena

From: Virgilio, Rosetta
Sent: Thursday, March 24, 2011 4:00 PM
To: Harrington, Holly
Cc: Turtill, Richard; LIA04 Hoc; OST05 Hoc; Nelson, Robert; Nguyen, Quynh; Barker, Allan; Maier, Bill; Tifft, Doug; Woodruff, Gena; Logaras, Harral; McNamara, Nancy; Trojanowski, Robert; /o=USNRC/ou=First Administrative Group/cn=Recipients/cn=6bd3eb76-62865841-d1d223b9-1e5f5439; Browder, Rachel; Erickson, Randy; Janda, Donna; Lynch, James; Orendi, Monica
Subject: RE: NRC COMMUNICATIONS REGARDING ELEVATED RADIATION LEVELS AT NRC LICENSED NPPs

Thanks, Holly

From: Harrington, Holly
Sent: Thursday, March 24, 2011 3:12 PM
To: Virgilio, Rosetta; Nelson, Robert; Nguyen, Quynh
Cc: Turtill, Richard; LIA04 Hoc; OST05 Hoc
Subject: RE: NRC COMMUNICATIONS REGARDING ELEVATED RADIATION LEVELS AT NRC LICENSED NPPs

Per Eliot, we can say this:

We are aware that minute amounts of radioactive elements have been detected at the very sensitive monitoring equipment at a number of privately owned nuclear plants. The US Government is looking at the best vehicle for reporting to the public this and any other data gathered by government. Nothing detected so far comes anywhere near a level that might concern us. We remain convinced there will be no health impact on the United States.

From: Virgilio, Rosetta
Sent: Wednesday, March 23, 2011 7:17 PM
To: Nelson, Robert; Harrington, Holly; Nguyen, Quynh
Cc: Turtill, Richard; LIA04 Hoc; OST05 Hoc
Subject: NRC COMMUNICATIONS REGARDING ELEVATED RADIATION LEVELS AT NRC LICENSED NPPs
Importance: High

Nelson/Holly/Quynh –

What is NRC saying, if anything, with regard to **current** reports of elevated radiation levels found at NRC licensed facilities?

We understand NRR was working on an IN and also heard NEI offered to collect data from licensees.

We anticipate news of elevated levels will hit the streets soon and are looking for an approved NRC message that addresses the issue. Please advise. Thanks much.

Rosetta

Woodruff, Gena

From: Easson, Stuart
Sent: Thursday, March 24, 2011 4:09 PM
To: Turtill, Richard; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill
Cc: Virgilio, Rosetta
Subject: RE: State requests for Meetings with NRC/NRC participation

RSLOs,

The file has been place in the following SharePoint directory. You can either populate it directly or send me the info and I will take care of it.

<http://portal.nrc.gov/edo/fsme/dilr/ILB/Private%20ILB%20Site/State%20Regeusts%20of%20NRC/Forms/AllItems.aspx>

This directory has restricted permissions and can only be viewed by ILB, DILR owners (Amanda and myself) and the RSLOs. Please let me know if you have any issues accessing the file.

Thanks,
Stuart

From: Turtill, Richard
Sent: Thursday, March 24, 2011 11:28 AM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill
Cc: Virgilio, Rosetta; Easson, Stuart
Subject: State requests for Meetings with NRC/NRC participation

RSLOs,

We'd like to keep track of State requests for Regional participation in meetings, briefings, etc., following the events in Japan. Please either complete the attached xcel sheet, or provide information (State, Request, Date, Contact, Meeting Participants, Status) directly to Stuart Easson (Stuart.Easson@nrc.gov) who will maintain a database on this. As an example, the NY meeting, and others, are populated in the attached.

The database will be stored in a SharePoint directory in order to provide everyone the ability to view the information. Link to location will be provided.

Thanks. Rich

Richard Turtill, Chief

Intergovernmental Liaison Branch

Office of Federal and State Materials and Environmental Management Programs

U.S. Nuclear Regulatory Commission

301-415-2308

800-368-5642

State Requests of NRC for Individual Meetings, Briefings Following Japanese Event

State Requests of NRC for Individual Meetings, Briefings Following Japanese Event

State	Request	Date	Contact	Meeting Participants	Status
New York	Request came in week of March 14, 2011 through RI and HQ	3/22/2011		Eric Leeds, NRR; Brian Sheron, RES; Jack Grobe, NRR, OGC, Region I on phone, FSME (Turtill), Brian Wittick, State of NY: LI. Governor Duffy, Paul Eddy, Howard Glaser, Feenly, Mathews	Leeds/Grobe, NRR led meeting 10:30 am 3/22/11 at NRC Headquarters; Concerns expressed included 2010 GI-199 report, evacuation of NY population, and NY request to NRC to expedite Indian Point seismic evaluation/risk analysis in light of GI-199 report and 3/11/11 Japanese earthquake and tsunami. Request: Make IP a priority
New Jersey	NRC to brief their domestic security preparedness taskforce.	Tentatively scheduled for March 24th.	Doug Tift	supported by region 1 (Nancy and Doug and they will be using the talking points released by the agency. This briefing is exempt from the New Jersey open information act.	

□

Mendez-Gonzalez, Sandra

From: Rich, Daniel
Sent: Thursday, March 24, 2011 4:34 PM
To: Stewart, Scott
Cc: Barillas, Martha; Schroer, Suzanne; Ninh, Son; Morrissey, Thomas; Sanchez, Steven; Hoeg, Tim; Reyes, Rogerio; Childs, Natasha; Mendez-Gonzalez, Sandra
Subject: RE: Testing of B5b pumps (TI-183)

All:

I just pressed Bill to try to have a Region wide conference call with residents as early as possible to answer your questions.

Bill stated we would aim for early next week, hopefully Monday.

(b)(5)

Thanks
Dan

From: Stewart, Scott
Sent: Thursday, March 24, 2011 3:56 PM
To: Rich, Daniel
Cc: Barillas, Martha; Schroer, Suzanne; Ninh, Son
Subject: RE: Testing of B5b pumps (TI-183)

(b)(5)

Scott

From: Bowman, Eric
Sent: Thursday, March 24, 2011 2:16 PM
To: Kobetz, Timothy; Rich, Daniel; Stewart, Scott
Cc: Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim
Subject: RE: Testing of B5b pumps (TI-183)

All,

(b)(5)

Thanks!

Eric

From: Kobetz, Timothy
Sent: Thursday, March 24, 2011 2:01 PM
To: Rich, Daniel; Stewart, Scott; Bowman, Eric
Cc: Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim
Subject: RE: Testing of B5b pumps (TI-183)

I agree with Dan.

From: Rich, Daniel
Sent: Thursday, March 24, 2011 2:00 PM
To: Stewart, Scott; Bowman, Eric; Kobetz, Timothy
Cc: Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim
Subject: RE: Testing of B5b pumps (TI-183)

Scott:

(b)(5)

Dan

From: Stewart, Scott
Sent: Thursday, March 24, 2011 1:33 PM
To: Bowman, Eric; Kobetz, Timothy
Cc: Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim
Subject: RE: Testing of B5b pumps (TI-183)

(b)(5)

From: Bowman, Eric
Sent: Thursday, March 24, 2011 1:01 PM
To: Kobetz, Timothy; Stewart, Scott
Cc: Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim
Subject: RE: Testing of B5b pumps (TI-183)

Tim,

(b)(5)

Thanks!

Eric

From: Kobetz, Timothy
Sent: Thursday, March 24, 2011 12:45 PM
To: Stewart, Scott
Cc: Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim; Bowman, Eric
Subject: RE: Testing of B5b pumps (TI-183)

Scott,

(b)(5)

Feel free to give me if you want to talk this through a little more. Eric Bowman may be able to shed some light on this also.

Thanks, Tim

Tim Kobetz
Chief, Reactor Inspection Branch
Office of Nuclear Reactor Regulation
301-415-1932 (work)
(b)(6) (work cell)

From: Stewart, Scott
Sent: Thursday, March 24, 2011 12:00 PM
To: Kobetz, Timothy
Cc: Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim
Subject: Testing of B5b pumps (TI-183)

Tim;

(b)(5)

Scott Stewart
SRI-Turkey Point

Woodruff, Gena

Subject: FW: HHS State/Territory 2011 Pacific Basin Earthquake/Tsunami Conference Call
Location: ASPR Main Conference Room - 638G or via Conference Call

Start: Thu 3/24/2011 5:00 PM
End: Thu 3/24/2011 6:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Natarajan, Nitin (HHS/ASPR/OPEO)

We highly recommend that the States dial in to this HHS organized call.

-----Original Appointment-----

From: Natarajan, Nitin (HHS/ASPR/OPEO)

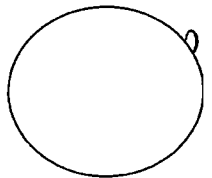
Sent: Thursday, March 24, 2011 9:03 AM

To: Natarajan, Nitin (HHS/ASPR/OPEO); 'April Arbuckle'; 'Weise, Donna'; Turtill, Richard; Ryan, Michelle; LIA04 Hoc; OST05 Hoc; (b)(6); 'Tupin.Edward@epamail.epa.gov'; Dimmick, Lisa; Noonan, Amanda

Subject: HHS State/Territory 2011 Pacific Basin Earthquake/Tsunami Conference Call

When: Thursday, March 24, 2011 5:00 PM-6:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: ASPR Main Conference Room - 638G or via Conference Call



NOTE: All speakers/Q&A participants, please notify the operator that you are a speaker when you connect.

Thanks again to all the speakers/interagency partners for your time and assistance on these calls. They have been very well received by our partners and we continue to have approximately 200 participants per call.

If you are unable to attend, if you could please forward this to a representative from your agency who could present on your behalf, it would be appreciated.

N

As stated on Tuesday's call, HHS would like to invite our State/Territorial partners to another informational conference call regarding the 2011 Pacific Basin Earthquake/Tsunami. An agenda and call-in information is below. There are a limited number of lines available (200), so we ask that participants from the same jurisdiction do their best to dial-in from the same location. We intend to hold follow-up calls as the situation warrants.

Participants: State/Territorial Health Officials, State/Territorial Preparedness Directors, State/Territorial Radiation Protection Program Leads, State/Territorial Public Affairs Officers, Staff of the Radiation Protection Alliance, NPHIC Staff

Date/Time: Thursday March 24, 2011 5:00PM Eastern (We ask that participants dial-in at least five minutes prior to the start of the call)

Agenda:

1. NRC Update – NRC Staff
2. EPA Update – EPA Staff
3. Food Safety Issues – FDA Staff
4. Repatriation Issues – ACF Staff

5. Mental Health Issues – SAMHSA
6. HHS Response Update – ASPR/CDC
7. HHS Public Affairs Update – Gretchen Michael
8. Q&A

Dial-in Information

Toll-Free Phone Number: 888-603-9604

Toll Phone Number: 312-470-0137

Passcode: (b)(6)

Please note: All participants will be in a muted listen-only mode until the Q&A period begins.

Thanks in advance for your time and assistance and as always, if you have any questions or concerns, please feel free to contact us.

Nitin

Nitin Natarajan
Coordinating Director
HHS/ASPR/OPEO
202-260-2002 Office
202-205-9058 STE
(b)(6) Cellular
nitin.natarajan@hhs.gov E-mail

Wert, Leonard

From: Leeds, Eric
Sent: Thursday, March 24, 2011 5:35 PM
To: Howell, Art; Collins, Elmo; Pederson, Cynthia; Wert, Leonard; West, Steven; McCree, Victor; Dean, Bill; Lew, David; Weber, Michael; Virgilio, Martin
Subject: FYI: Comm Team SitRep - 3/24

I don't forward all of these, only the ones I think have interest to the regions. If this is NOT of interest to you, please let me know and I'll stop forwarding.

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: Nelson, Robert
Sent: Thursday, March 24, 2011 4:13 PM
To: Leeds, Eric; Boger, Bruce; LIA06 Hoc; Roberts, Darrell; Lara, Julio; Kennedy, Kriss; Croteau, Rick; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Evans, Michele; Ferrell, Kimberly; Galloway, Melanie; Glitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; McGinty, Tim; Quay, Theodore; Ruland, William; Skeen, David; Thomas, Brian
Cc: West, Steven; Shear, Gary; Hay, Michael; Meighan, Sean; Nguyen, Quynh; Thomas, Eric; Oesterle, Eric; Craver, Patti; Broaddus, Doug; Campbell, Stephen; Carlson, Robert; Chernoff, Harold; Kulesa, Gloria; Markley, Michael; Pascarelli, Robert; Salgado, Nancy; Simms, Sophonia; Wall, Scott
Subject: FYI: Comm Team SitRep - 3/24

1. DIRS is working on an update to the publicly available REMP Fact Sheet
2. DPR prepared responses to 10 Price Anderson Qs; forwarded to OPA for public availability.
3. DIRS developed a format for NEI to report environmental monitoring data; e-mailed to Alex Marion. In a related matter, NRR is developing a RIS to the licensees regarding radioisotopes detected by the REMP program
4. Provided quick-turnaround responses to several Qs forwarded by OPA.
5. Organizing and processing numerous related green tickets.
6. A principal focus for today has been the development of an easily searchable database for Qs & As, 2./206s, and controlled correspondence.
7. I attended the FOIA coordination meeting this afternoon along with Pattie Craver. My overall assessment is that we got no relief from the search & print requirements and no assistance from OIS in doing this in an automated way. The FOIA folks will provide guidance on timing. I'll get together with Pattie and develop some office wide guidance on how to proceed. Bottom line is that there is no easy way to respond.

NELSON

Munday, Joel

From: Trojanowski, Robert
Sent: Friday, March 25, 2011 7:31 AM
To: McCree, Victor; Wert, Leonard; Croteau, Rick; Jones, William; Munday, Joel; Hopper, George; Bernhard, Rudolph; Hannah, Roger; Ledford, Joey; Christensen, Harold; Gody, Tony; Cobey, Eugene; Piccone, Josephine; Turtill, Richard; Virgilio, Rosetta; Ryan, Michelle; McGrady-Finneran, Patricia; Droggitis, Spiros; Hunter, James; Lankford, Jeffrey
Subject: * * * AREVA; Re: ANALYSIS/SUMMARY OF FUKUSHIMA, DAIICHI * * *
Attachments: Fukuchima_eng_20110320.pps

FYI-----AREVA analysis / summary of Fukushima, Daiichi site, dated 3/25/2011

Wert, Leonard

From: Rich, Daniel
Sent: Friday, March 25, 2011 8:20 AM
To: McCree, Victor
Cc: Wert, Leonard
Subject: Japan Briefing

Vic:

I attended the 7:30 am conference call.

- Regarding Unit Status:
 - Unit 1 is still being cooled with salt water, may shift to fresh water today. Nobody understood the note in the written status update about the "Dam Source" of fresh water.
- The status of the fresh water barges was not clear, apparently near to the site but the Navy was trying to verify the harbor was clear before bringing the barges in.
- The max dose received by on-site responders was reported to be in the range of 18 to 20 Rem.
- Chuck attended a meeting today at the TEPCO EOF, still waiting to hear any news from that..
- The Chairman will meet with the Japanese Ambassador today at 11 am.

Nothing else of note outside of the information in the written status update.
Please call with questions

Dan

Crowe, Eddy

From: Shaeffer, Scott
Sent: Friday, March 25, 2011 8:34 AM
To: Cain, Loyd; Crowe, Eddy; Sowa, Jeffrey; Chandler, Timothy
Cc: Fuller, Justin
Subject: FW: NRC in the local Vidalia news
Attachments: NRC in the News Vidalia News Website.docx

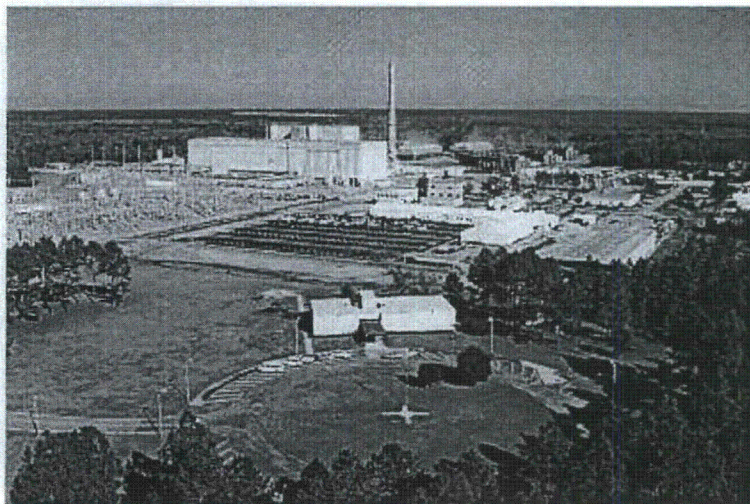
These are good messages to put to memory going into the EOC meetings

From: Morris, Eddie
Sent: Friday, March 25, 2011 8:55 AM
To: Ledford, Joey
Cc: Shaeffer, Scott; Rose, Steven; Lighty, Tonya; Hardage, David; Dyal, Edna
Subject: NRC in the local Vidalia news

Vidalia News Website & Aired on Local Radio Station 970AM news loop

http://www.southeastgeorgiatoday.com/index.php?option=com_content&task=view&id=5965&Itemid=117

March 24-- In the aftermath of the earthquake in Japan which wrecked some of the country's nuclear power plants, the U.S. Nuclear Regulatory Commission says it is "confident, but not complacent" when it comes to the safety of nuclear plants like Plant Hatch south of Vidalia.



Joey Ledford with the NRC regional office in Atlanta says, "The amount of emergency, systems and facilities planning that go into these plants is unsurpassed. We remain confident in safety. That does not mean we are complacent. We will continue to look at upgrading safety and security and once the events in Japan are totally concluded, we will draw lessons learned from those events and those things will be incorporated into our plants around the country."

The NRC has two on-site inspectors at Plant Hatch who are the public's eyes and ears, "and they're there everyday to insure the plant is operated in a way that protects the public safety and the environment," Ledford reports.

"Our industry is run on a concept that is known as defense in depth. That basically means that every system has a backup and every backup has a backup," Ledford says.

"A great amount of planning goes into insuring that all of these systems remain functional. We get worked up when we find out there's a problem with one of four emergency diesel generators at a plant. You wouldn't believe the amount of regulatory activity goes into just making sure a diesel generator is ready in the event of loss of offsite power like what happened in Japan. Basically, not detail is left unaddressed and if you live nearby, you can take some confidence in that," he says.

Eddie D. Morris
NRC Senior Resident Inspector - Hatch
912-367-9881

Edwards, Denise

From: Seymour, Deborah
Sent: Friday, March 25, 2011 8:36 AM
To: Edwards, Denise; Gloersen, William
Subject: Emailing: Japanese radiation levels could have triggered larger evacuation area under U.S. guidelines - Nextgov.htm
Attachments: image003.gif; image006.gif; image007.gif; image008.png; image009.jpg

Japanese radiation levels could have triggered larger evacuation area under U.S. guidelines

BY WILLIAM MATTHEWS 03/23/2011

Radiation levels in some unevacuated areas around Japan's crippled Fukushima Dai-ichi nuclear power plant were high enough to trigger "protective action," likely an evacuation, under U.S. radiation exposure guidelines.

The Energy Department used airborne and ground-based monitors to detect radiation that exceeded 12.5 millirems per hour, or 1,200 millirems over a four-day period, in areas outside the 12-mile evacuation zone surrounding the Japanese disaster. Under U.S. guidelines, if exposure to radiation exceeds 1,000 millirems -- a standard unit for measuring radiation -- over four days, then Environmental Protection Agency recommends protective action, an Energy report this week said.

Protective action could consist of staying indoors during a small, short-term release of radiation, but likely would involve evacuating areas before a major release, said Roger Hannah, a spokesman for the Nuclear Regulatory Commission.

A day before the monitoring began, NRC already had urged U.S. citizens and military personnel to move at least 50 miles away from the Fukushima plant. Japanese authorities ordered people within 12 miles of the plant to evacuate.

"Our recommendations are usually very conservative," Hannah said. So while protective action can mean "sheltering indoors" if a minor radiation release is expected, evacuation is the most effective way to ensure that people are not exposed to radiation during a prolonged release, he said.

Japanese emergency workers have been struggling to regain control over the Fukushima nuclear plant since it was severely damaged during the March 11 earthquake and tsunami. Energy sent 33 radiation experts from its National Nuclear Security Administration to Japan on March 15. They joined six others already there to begin sampling for radiation using sensors aboard U.S. military planes and at numerous locations on the ground.

The monitors discovered radiation readings of less than 1.19 millirems per hour along the coast and as far south as Tokyo and Kawasaki, as well as due west of the stricken power plant. But in a swath stretching northwest from the plant, they gathered readings of greater than 12.5 millirems per hour. The high radiation readings were discovered in an area northwest of the 12-mile evacuation zone.

"Given the circumstances, we would have recommended a larger evacuation area," Hannah said.

Energy gathered radiation levels near the Japanese power plant from March 17-19, according to the department's report.

Meanwhile, the Food and Drug Administration announced that its inspectors might block imports of dairy products, fresh produce and infant formula that come from areas around the Fukushima power plant.

Japanese health officials said March 19 they had discovered radioactive iodine at five times acceptable levels in those products during screening March 16-18.

In an unrelated radiation scare on March 22, the American Federation of Government Employees called for the Transportation Security Administration to begin nationwide monitoring of TSA workers for exposure to radiation from X-ray machines used to inspect airline passengers' luggage.

AFGE president John Gage said TSA workers should be given dosimeters, devices that would track their radiation exposure. He said he made the request after learning TSA has ordered new tests on radiation-emitting equipment after finding errors in earlier results.

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1. RSA security breach compromised federal network ID tool
2. Wisconsin reps try to derail VA/Defense open source health records system
3. Navy's two command ships manage operations a world apart

- **WHAT'S BREWIN'**

Wisconsin Stiffs Vets

BY BOB BREWIN 03/24/11 04:49 pm ET

- **WIRED WORKPLACE**

Telework Secrets

BY BRITTANY BALLENSTEDT 03/24/11 11:41 am ET

- **TECH INSIDER**

Cloudburst

BY TOM SHOOP 03/22/11 03:27 pm ET

- **CYBERSECURITY REPORT**

Cybersecurity Ecosystem: The Future?

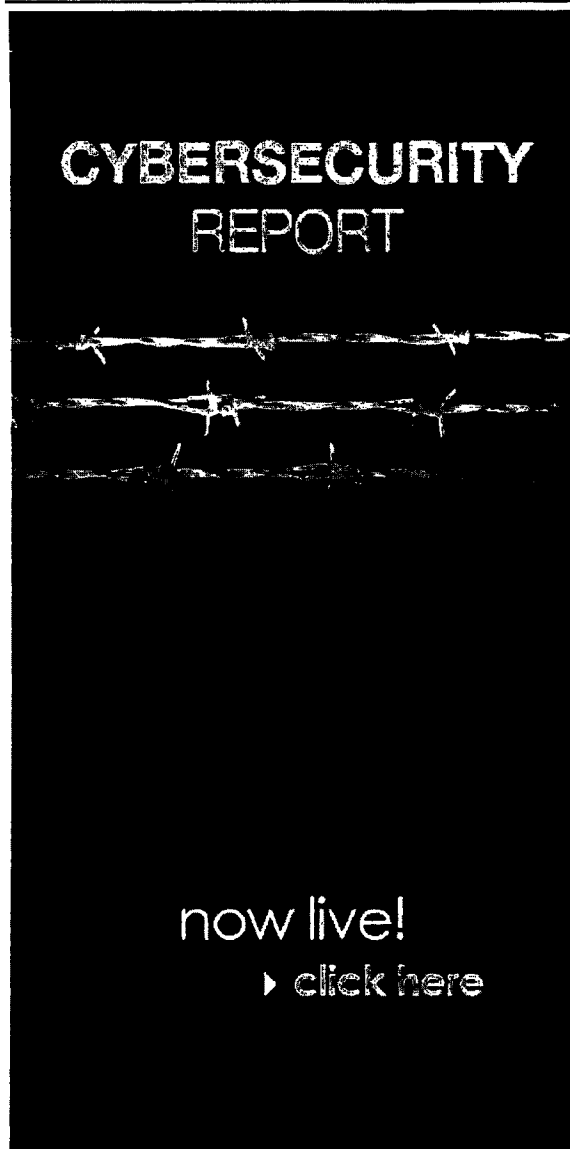
BY JESSICA HERRERA-FLANIGAN 03/24/11 08:59 am ET

- **HEALTH IT UPDATE**

Docs warm to the iPad

BY JOHN PULLEY 03/23/11 12:22 pm ET

- **BLOGS HOMEPAGE**



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MARCH 24

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Wert, Leonard

From: Hickey, James
Sent: Friday, March 25, 2011 8:59 AM
To: Croteau, Rick; Jones, William; Musser, Randy
Cc: Worosilo, Jannette; Wilson, Gerald; Scott, Christian; McCree, Victor; Wert, Leonard; Austin, Joseph; OBryan, Phil
Subject: Robinson Detectable levels of I-131 on and offsite

Good Morning,

The licensee has 10 locations on and off-site which are sampled weekly for I-131 (airborne). All 10 locations have returned positive results for I-131. The highest concentration was at the Florence sample location ~24 miles from the plant. The measured activity was .0628 picoCi/cubic meter. This value is right at the minimum detection threshold. The state reporting threshold is .9 picoCi/cubic meter. There have been reports from other nuclear sites of similar indications. NEI is developing a communications plan for the issue. The licensee plans to provide a courtesy call the South Carolina state environmental agency today. No waterborne I-131 has been detected, this is also a weekly sample.

The residents will receive the results of subsequent samples and evaluate the trend.

Regards,
Jim



James A. Hickey
Senior Resident Inspector
Region II
Robinson Plant
843-383-4571

Jones, William

From: Jones, William
Sent: Friday, March 25, 2011 10:21 AM
To: Munday, Joel
Subject: FW: trace I-131 measured at CR3, Harris and Robinson due to Japan event

Now that we are seeing these who would you like DRP to work with?

From: Rich, Daniel
Sent: Friday, March 25, 2011 8:42 AM
To: Jones, William
Subject: FW: trace I-131 measured at CR3, Harris and Robinson due to Japan event

FYI

From: Morrissey, Thomas
Sent: Friday, March 25, 2011 7:07 AM
To: Rich, Daniel
Cc: Ninh, Son; Reyes, Rogerio; Childs, Natasha; Stewart, Scott; Sanchez, Steven; Hoeg, Tim; Barillas, Martha; Hannah, Roger; Ledford, Joey
Subject: trace I-131 measured at CR3, Harris and Robinson due to Japan event

Dan,
FYI

Per the licensee this morning, nuclear power plants, moving west to east have been picking up Iodine (I-131) in their air/water samples. Yesterday, at CR3, RM-A2, Aux building/Fuel handling floor, radiation monitor picked up I-131. The charcoal filter indicated $1.34\text{E-}13$ uc/cc and the particulate filter indicated $1.69\text{E-}15$ uc/cc. There was an NCR also written at Harris on I-131 found in the Cape Fear River @ .62 pcuries/L. There was also a positive indication of I-131 at Robinson. At this time, the licensee is not planning on issuing a press release. The I-131 is believed to be from the Japan event. The RCS system at CR3 does not have I-131. The I-131 half life is 8 days...

R/Tom



*United States
Nuclear Regulatory Commission*

Thomas Morrissey
Senior Resident Inspector
Crystal River Nuclear Plant
Phone. 352.795.7677
Pager. (b)(6)

Hartland, David

From: Corrado, Jonathan K [ccoradok@usec.com]
Sent: Friday, March 25, 2011 10:24 AM
To: Hartland, David
Cc: Coriell, Kelly L; LaFave, Aerik R
Subject: RE: response to Japanese earthquake

Dave,

We are actively working your request as stated in your email, but need some clarification: what date do you need a response by and in what format would you like the response (email or formal letter)?

Thanks,

John Corrado
ACP Regulatory

From: Hartland, David [<mailto:David.Hartland@nrc.gov>]
Sent: Thursday, March 24, 2011 03:12 PM
To: Fogel, Douglas K; Sensue, Terry; Wyatt Padgett (LES) <wpadgett@nefnm.com>; borenm@usec.com <borenm@usec.com>; Greeno, Michael <Michael.Greeno@Honeywell.com>; Martin Jr., Thomas A.
Cc: Calle, Joselito <Joselito.Calle@nrc.gov>
Subject: response to Japanese earthquake

As I'm sure you are aware, the NRC is reviewing what impact a major earthquake would have on the facilities we regulate, including fuel facilities. Up to this point, we have reviewed your licensing documents to determine what your design basis accidents are and what safety features you have available to mitigate such accidents. Thanks to those who have provided information in support of this effort.

We now are looking for some additional information if it exists. In the event that your site encounter an accident (e.g., earthquake, flood, tornado etc) that is beyond what was analyzed, please describe what mitigating actions you have available to cope with such a disaster. These may be described in EIPs for disaster response that I recall seeing at some of the sites. Please respond by early next week.

Jones, William

From: Jones, William
Sent: Friday, March 25, 2011 10:28 AM
To: Hopper, George
Cc: Croteau, Rick
Subject: FW: Information on TI-2515/183 Inspections and Training
Attachments: TI 2515-183.pdf; INPO Event Report 11-1.pdf; IN 2011-05.pdf

I am ok with putting this out to our residents and staff with an update the KM aspects. Do we want to consider tying into the R4 km session Monday? Particularly if we can break the bridges apart and talk any R2 specifics. For your consideration

From: Munday, Joel
Sent: Friday, March 25, 2011 6:02 AM
To: Hopper, George; Jones, William; Croteau, Rick
Subject: Fw: Information on TI-2515/183 Inspections and Training

Here is the RIV approach.

This email is being sent from an NRC Blackberry device.

From: Vogel, Anton
To: Wilson, Peter; Munday, Joel; Reynolds, Steven
Sent: Thu Mar 24 16:49:18 2011
Subject: FW: Information on TI-2515/183 Inspections and Training

Pete, Joel, and Steve

As we discussed during the call, information and some guidance we had given to our inspectors regarding TI 183.

Thanks!

Tony V.

From: OKeefe, Neil
Sent: Thursday, March 24, 2011 2:55 PM
To: R4DRP-BC; R4DRP-RES; R4DRP-SRI; R4DRS-BC
Cc: R4DRP-PE; R4DRS-EB1; R4DRS-EB2; R4DRS-OB; R4DRS-SRA; R4DRS-TSB; Kennedy, Kriss; Pruett, Troy; Vogel, Anton; Howell, Art; Collins, Elmo
Subject: Information on TI-2515/183 Inspections and Training

All,

You have probably heard about the plan to conduct a prompt review of nuclear power plant safety. The first step will be handed by TI-2515/183. This e-mail and the attachments are intended to give you the basic information, and to invite you to a KM/KT session including Q&A about TI-183 on Monday.

When: TI-183 was issued on 3/23/11. Inspections should be as soon as possible, and be completed by 4/29/11. The results will be documented in a stand-alone report by 5/13/11.

Who will inspect: Resident inspectors at each site will complete the inspection. If necessary, backfill to support normal resident functions should be arranged.

Level of effort: The TI is intended to expend about 40 hours of inspection effort. Elements of the review relate to flood protection and adverse weather preparation, so where practical, charge hours and take inspection credit to those procedures. It is important to note that this is intended to be a first step, high level, and relatively quick review.

Reporting: Details are still being worked out. The TI was issued with a promise to develop reporting guidance, which will probably be made as a revision to the TI. This is looking like it will be in the form of a table with questions, though the questions are not likely to be yes/no questions. We are working with NRR to develop some sort of a standard cover letter and report template so that the public message will be clear and uniform from site to site.

Inspection support: DRS will provide expert support from the region. Contact Neil O'Keefe when you have technical questions, and he will get you in contact with the right technical person. Mike Hay is coordinating the inspection effort.

We are trying to set up a KM/KT session for Monday at 1 PM CDT to discuss the TI and to provide some training on B.5.b and Severe Accident Mitigation Guidelines that will be helpful when you perform these TI inspections. Residents, please plan to have at least one inspector per site call in. The session will be video-taped and made available. We will also try to answer your questions.

Inspection scope: The main thrust is to assess licensee actions taken in response to INPO Event Report 11-1 (3/15/11). That IER asked licensees to perform walkdowns and tests that included:

- Verify capability to perform B.5.b and SAMG mitigation actions (due 3/23/11)
- Verify capability to mitigate station blackout conditions (due 3/30/11)
- Verify capability to mitigate design-basis flooding events (due 4/6/11)
- Identify equipment that could be lost during seismic events and develop mitigating strategies for any vulnerabilities. (due 4/13/11)

TI-183 closely parallels the INPO request because inspectors are being asked to assess what the licensee did to respond to that request. Because the requested completion dates have already started coming due, inspection should begin promptly. Inspectors should consider taking advantage of opportunities to observe the licensee's actions to walk down or test mitigation strategies, rather than waiting for them to be completed.

Region II has a 2-day training session on SAMGs that can be reviewed if you have time, check out this link on the RII web site. <http://r2.nrc.gov/videoarchive/>

Neil O'Keefe
Chief, Engineering Branch 2, RIV
(817) 860-8137

Jones, William

From: Jones, William
Sent: Friday, March 25, 2011 12:55 PM
To: Hopper, George
Subject: RE: TI-183 Implementation

thanks

From: Hopper, George
Sent: Friday, March 25, 2011 12:48 PM
To: R2DRP_ALL; R2DRS
Cc: McCree, Victor; Wert, Leonard; Schwieg, Mark
Subject: TI-183 Implementation

Due to the events in Japan, DIRS issued TI-183 for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued last week. Here are the highlights:

- The TI is an independent assessment and verification of the licensee's response to the event. Information gathered during this TI will be used to determine what, if any, additional I
- The main focus of the inspection is to assess the licensee's verification, not perform a complete independent inspection.
- It references applicable NRC inspection guidance when possible
- It recommends 40 hours per site and allows the regions to take credit for the baseline inspections (Flood Protection and Adverse Weather) if possible (I do expect a lot of feedback on the level of effort).
- The information gathered from this TI will be used to evaluate industry's readiness for a similar event and to aid in evaluating whether additional NRC regulatory actions are warranted.

Inspection scope: The main intent is to assess licensee actions taken in response to INPO Event Report 11-1 (3/15/11). That IER asked licensees to perform walkdowns and tests that included:

- Verify capability to perform B.5.b and SAMG mitigation actions (due 3/23/11)
- Verify capability to mitigate station blackout conditions (due 3/30/11)
- Verify capability to mitigate design-basis flooding events (due 4/6/11)
- Identify equipment that could be lost during seismic events and develop mitigating strategies for any vulnerabilities. (due 4/13/11)

Who will inspect: Resident inspectors at each site will complete the inspection. If necessary, backfill to support normal resident functions should be arranged.

Reporting: Details are forthcoming. The TI was issued with an intent to develop reporting guidance, which will probably be made as a revision to the TI. It looks like it will be in the form of a table with questions to be answered. NRR intends to develop a standard cover letter and report template so that the public message consistent from site to site. Also, NRR intends to create a SharePoint Portal as a parking lot to post any issues found.

Inspection support: DRS will provide expert support from the region. Shakur Walker and Rodney Fanner have performed many B.5.b inspections

Training:

In order to accomplish some of the inspection activities in section 03.01, the inspectors should review the following as part of the Just in Time Training we will need to do this. It would be beneficial to review some, if not all, of the following as a refresher:

1) TI-171 (B.5.b) -- avail on NRR website under "Security-Related" inspection documents (<http://nrr10.nrc.gov/rop-digital-city/insp-documents/ti2515171r1.doc>).

The TI contains what the licensee was to specifically have implemented for B.5.b. Also contains site specific initial response ML#s, NRC Response ML#s, and SER ML#s.

2) The site specific TI-171 Inspection Report (see below regarding the B.5.b community of practice).

3) RIS 2008-15, Staff Position On Mitigating Strategies Implemented in Response To Security Orders in Risk Informed Licensing Actions and In the SDP

(<http://adamswebsearch2.nrc.gov/idmws/ViewDocByAccession.asp?AccessionNumber=ML080630025>)

4) Applicable B.5.b self-assessment

Please go to the NRC Knowledge Center and join the B.5.b Community of Practice to and **join the community**. This will give you access to all of the plant specific documents and reports, SERs etc. associated with B.5.b. <http://nrcknowledgecenter.nrc.gov/CommunityBrowser.aspx?id=1&showallcommunities=true> along with a wealth of other information

For section 03.02 you can look at TI 2515/120 for SBO items.

<http://pbadupws.nrc.gov/docs/ML0915/ML091530086.pdf>

We are drafting a more detailed inspection plan that will detail what items we want to independently verify via walkdowns. The SRAs are reviewing are strategy and we should have this completed by Tuesday 3/29.

Region IV is having a training session on Monday and we are looking into tying into this.

NRC INSPECTION MANUAL

IRIB

TEMPORARY INSTRUCTION 2515/183

FOLLOWUP TO THE FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

CORNERSTONE: INITIATING EVENTS AND MITIGATING SYSTEMS

APPLICABILITY: This Temporary Instruction (TI) applies to all holders of operating licenses for nuclear power reactors, except plants which have permanently ceased operations.

2515/183-01 OBJECTIVES

The objective of this TI is to independently assess the adequacy of actions taken by licensees in response to the Fukushima Daiichi nuclear station fuel damage event. The inspection results from this TI will be used to evaluate the industry's readiness for a similar event and to aid in determining whether additional regulatory actions by the U.S. Nuclear Regulatory Commission are warranted. Therefore, the intent of this TI is to be a high-level look at the industry's preparedness for events that may exceed the design basis for a plant. If necessary, a more specific followup inspection will be performed at a later date.

2515/183-02 BACKGROUND

On March 11, 2011, the Tohoku-Taiheiyou-Oki Earthquake occurred near the east coast of Honshu, Japan. This magnitude 9.0 earthquake and the subsequent tsunami caused significant damage to at least four of the six units of the Fukushima Daiichi nuclear power station as the result of a sustained loss of both the offsite and on-site power systems. Efforts to restore power to emergency equipment have been hampered or impeded by damage to the surrounding areas due to the tsunami and earthquake. The following background information is current as of March 18, 2011.

Units 1 through 3, which had been operating at the time of the earthquake, scrambled automatically, inserting their neutron absorbing control rods to ensure immediate shutdown of the fission process. Following the loss of electric power to normal and emergency core cooling systems and the subsequent failure of back-up decay heat removal systems, water injection into the cores of all three reactors was compromised, and reactor water levels could not be maintained. Tokyo Electric Power Company (TEPCO), the operator of the plant, resorted to injecting sea water and boric acid into the reactor vessels of these three units, in an effort to cool the fuel and ensure the reactors remained shutdown. However, the fuel in the reactor cores became partially uncovered. Hydrogen gas built up in Units 1 and 3 as a result of exposed, overheated fuel reacting with water. Following gas venting from the primary containment to relieve

pressure, hydrogen explosions occurred in both units and damaged the secondary containments. It appears that primary containments for Units 1 and 3 remained functional, but the primary containment for Unit 2 may have been damaged. TEPCO cut a hole in the side of the Unit 2 secondary containment to prevent hydrogen buildup following a sustained period when there was no water injection into the core.

In addition, problems were encountered with monitoring and maintaining Units 3 and 4 spent fuel pool (SFP) water levels. Efforts continue to supply seawater to the SFPs for Units 1 through 4 using various methods. At this time, the integrity of the SFPs for Units 3 and 4 is unknown.

Fukushima Daiichi Units 4 through 6 were shutdown for refueling outages at the time of the earthquake. The fuel assemblies for Unit 4 had been offloaded from the reactor core to the SFP. The SFPs for Units 5 and 6 appear to be intact.

The damage to Fukushima Daiichi nuclear power station appears to have been caused by initiating events that may have exceeded the design basis for the facilities.

2515/183-03 INSPECTION REQUIREMENTS AND GUIDANCE

NRC inspection staff should assess the licensee's activities and actions to assess its readiness to respond to an event similar to the Fukushima Daiichi nuclear plant fuel damage event. These inspections should occur at the operating power reactor facilities. Licensee emergency preparedness will not be assessed by this TI.

This TI may be completed all at once or in phases as the licensee verifies its capability to respond to such an event. The inspector(s) should coordinate the inspection effort with the licensee in accordance with the licensee's verification schedule.

The events at the Fukushima Daiichi plant appear to be caused by factors directly impacting nuclear safety that may have exceeded the design basis for the facility. While details on the full extent of damage to these units remain unknown, the damage poses a significant challenge to the nuclear safety of these units. Immediate actions by the U.S. industry are appropriate to assess and take corrective actions to address potential vulnerabilities that would challenge response to events that are beyond site design bases.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:

- a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.
- b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.
- c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).
- d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.
- e. Review any open corrective action documents to identify vulnerabilities that may not have yet been addressed.

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22" as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:

- a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.
- b. Demonstrate through walkdowns that procedures for response to an SBO are executable.

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding" as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate

actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.

2515/183-04 REPORTING REQUIREMENTS

The inspection results, including both observations and findings, of this TI should be in a stand-alone report. NOTE: This TI will be updated with a template which will provide specific guidance on reporting and documenting observations and findings.

The inspection report containing the results should be forwarded to NRR/DIRS/IRIB, Attention: Tim Kobetz via e-mail at timothy.kobetz@nrc.gov. Mr. Kobetz can also be reached at (301) 415-1932. The inspection results from this TI will be used to evaluate industry's readiness for a similar event and to aid in determining whether additional NRC regulatory actions are warranted.

2515/183-05 COMPLETION SCHEDULE

This TI is to be initiated upon issuance. Inspection activities are to be completed by April 29, 2011 and the inspection report issued by May 13, 2011.

2515/183-06 EXPIRATION

The TI will expire on June 30, 2012.

2515/183-07 CONTACT

Any technical questions regarding this TI should be addressed to Tim Kobetz at 301-415-1932 or timothy.kobetz@nrc.gov.

2515/183-08 STATISTICAL DATA REPORTING

All direct inspection effort expended on this TI is to be charged to 2515/183 with an IPE code of TI. All indirect inspection effort expended on this TI for preparation and documentation should be attributed to activity codes TIP and TID respectively.

2515/183-9 RESOURCE ESTIMATE

The estimated average time to complete the TI inspection requirements is 40 hours per site. Where applicable, inspectors should credit the baseline inspection program for samples reviewed during this TI assessment.

2515/183-10 TRAINING

Issue Date: 03/23/11

No additional training is required.

END

ATTACHMENT 1

Revision History for TI 2515/183 FOLLOWUP TO FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	ML11077A007 03/23/11	Researched commitments for 4 years and found none. This is a new document issued for inspections related to the industry response to the Fukushima Daiichi Nuclear Station Fuel Damage Event.	No	N/A	N/A

Mendez-Gonzalez, Sandra

From: Rich, Daniel
Sent: Friday, March 25, 2011 1:12 PM
To: Morrissey, Thomas; Reyes, Rogerio; Childs, Natasha; Stewart, Scott; Barillas, Martha; Schroer, Suzanne; Hoeg, Tim; Sanchez, Steven
Cc: Ninh, Son; Mendez-Gonzalez, Sandra
Subject: FW: REMP Reporting Levels and Fukushima

fyi

From: Bonser, Brian
Sent: Friday, March 25, 2011 11:08 AM
To: Shaeffer, Scott; McCoy, Gerald; Guthrie, Eugene; Bartley, Jonathan; Rich, Daniel; Hopper, George; Musser, Randy
Cc: Croteau, Rick; Jones, William; Munday, Joel; Christensen, Harold
Subject: FW: REMP Reporting Levels and Fukushima

Follow-up email on REMP

Brian R. Bonser

Chief, Plant Support Branch 1
Division of Reactor Safety, Region II
U.S. Nuclear Regulatory Commission
404-997-4653

From: Conatser, Richard
Sent: Wednesday, March 23, 2011 8:26 AM
To: Werner, Greg; Henderson, Pamela; Dickson, Billy; Bonser, Brian
Cc: Garry, Steven; Pedersen, Roger; Jimenez, Manuel; Clemons-Webb, Candace; Shoop, Undine
Subject: RE: REMP Reporting Levels and Fukushima

All,

I just wanted to send a follow up email to clarify a particular nuance in the email below that may not be obvious on a casual reading. The licensee is only required to report exceeding the REPORTING LEVELS in the Radiological Environmental Monitoring Program when the activity is due to effluents from their facility and it is averaged over a calendar quarter. This is why my original email says:

If a nuclide concentration exceeds the REPORTING LEVES (averaged over a calendar quarter), the licensee may be required to report the data to the NRC within 30 days. The licensee should take the actions listed in their ODCM.

Because the I-131 (and possibly other radionuclides) from Fukushima will elevate the "background," it will reduce the licensee's ability to differentiate releases from their site. Strong data evaluation and analyses are appropriate at all times, and are particularly applicable at this time.

Here is the nuance that may (or may not) be obvious on a casual reading. If the licensee knows that all the activity in a REMP sample is from the Fukushima facility, then a 30-day report is not required. If, however, the licensee is not able to discern whether the activity is from their facility or not, then they would need to follow their ODCM and take the appropriate actions, which may include a 30-day report to the NRC. Lastly, if the activity is from their facility, then the licensee would be required to make a 30-day report to the NRC.

The key issues are summarized below:

1. licensees need to be aware of their REPORTING LEVELS in their ODCMs,
2. the licensee's data evaluation is extremely important to discern plant-related activity from non-plant related activity,
3. licensees should not immediately assume all activity in REMP samples is from Fukushima,
4. licensees need to take the actions as outlined in their ODCMs (this is always true),
5. if a licensee is unable to make a determination whether the activity is plant-related or not, they may choose to make a 30-day Special Report as listed in their ODCM, and
6. if a licensee knows that all the activity is due to Fukushima, then a 30-day Special Report is not required (as listed in their ODCM).

You may wish to pass this along to the Inspectors in your Regions.

Best Regards,

Richard L. Conatser

Health Physicist

Nuclear Regulatory Commission

301-415-4039

Richard.Conatser@NRC.gov

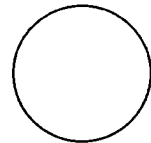
From: Conatser, Richard

Sent: Monday, March 21, 2011 12:18 PM

To: Werner, Greg; Henderson, Pamela; Dickson, Billy; Bonser, Brian

Cc: Garry, Steven; Pedersen, Roger; Jimenez, Manuel; Clemons-Webb, Candace; Shoop, Undine

Subject: REMP Reporting Levels and Fukushima



All,

You may want to pass this along to your Inspectors who will be on inspections during the next couple of months.

The NRC's REMP REPORTING LEVELS may be exceeded as a result of plumes from Fukushima passing over REMP sampling stations. This email contains some unit conversions for your use. The table below shows the default NRC REPORTING LEVEL for I-131 in REMP samples listed in NUREG-1301 (PWRs) and NUREG-1302 (BWRs). It also converts the REPORTING LEVELS to those units commonly used at the plant sites.

I-131 Reporting Level in NUREG 1301 and NUREG-1302

	I-131	Units	I-131	Units
Drinking Water	2	pCi/L	2E-09	uCi/ml
Non-Drinking Water	20	pCi/L	2E-08	uCi/ml
Air	0.9	pCi/m3	9E-13	uCi/cc

These are default values, and the site-specific values will be in the licensees' ODCMs. The REMP REPORTING LEVELS may be exceeded as a result of plumes from Fukushima passing over REMP sampling stations. The REMP results may vary as various puffs/plumes traverse the US. If a nuclide concentration exceeds the REPORTING LEVES (averaged over a calendar quarter), the licensee may be required to report the data to the NRC within 30 days. The licensee should take the actions listed in their ODCM.

Because the I-131 (and possibly other radionuclides) from Fukushima will elevate the "background," it will reduce the licensee's ability to differentiate releases from their site. Strong data evaluation and analyses are

appropriate at all times, and are particularly applicable at this time. This is also a good verification of licensee's analytical detection capabilities.

Best Regards,

Richard L. Conatser

Health Physicist

Nuclear Regulatory Commission

301-415-4039

Richard.Conatser@NRC.gov

Vias, Steven

From: Karen Brackett
Sent: Friday, March 25, 2011 6:31 PM
To: Vias, Steven
Subject: Time line

My theory about dropping a nuclear bomb on to these reactors is... really worth a look. You might want to have some guys like Micho Kaku look it over. I respect his opinion in this science. He has been one of the few with the courage to tell the truth in the news.

I hate to say this again... but I believe we have already eclipsed Chernobyl. It really concerns me that I seem to be the only one who knows this... or of even worse concern is that our scientists know it and are too afraid to say it.

Even time line wise... by this time the Russians had already drained their suppression pools to start pouring a cap at this two week mark. With the quake and tsunami the Japanese are just too shell shocked to think through this thing fast enough. Plus, on top of all of this they had a volcano erupt in January and February in the south of Japan. They are just way to over extended to deal with this crisis at this point.

They should have known that any water in those buildings would have been highly concentrated sodium hydroxide. A strong enough base... can be as bad or worse than a strong acid... add radiation to that... and you have buildings that are eating themselves up. The sodium hydroxide will eat throw the stainless steel... and crumble the concrete in time. I really do not know how they will stop the continuing damage the sodium will do over time to trust a cap now. They have too much sodium in the building and the rods are hot and boiling off more hydrogen... They have to stop putting water in there... even clean water is like throwing gas on a fire. There's so much salt now... that nitrogen gas will be a problem to use. I am really beginning to think... the only option they have left is to bomb these buildings. The reaction will consume most of the waste and drop the half lives of the waste that remains. The area is already devastated by the quake and contaminated by the reactors... So, they are really not risky anything at this point that is not already going to happen and has happened.. only this way they can control some of it. There is no win here. There is no way to make this all better. There is only this last chance to cut the damage down some.

At the two week mark in Chernoybl.. the Russians sent in three divers to dive into a suppression pool and open their drains... So, they could drain the water from the helicopter drops and be able to pour concrete. The water had turned to concentrated hydrogen peroxide... two of the three divers did not make it. In a way... the Japanese are behind the Russians in understanding what they are up against... and what is worse... is they are up against something far worse than Chernoybl. They are still having intermitent criticalities occurring too... and they have multiple damaged sites instead of just one. The United States really needs to limit nuclear reactors to only two per location... and only one of the two being allowed to run at a time. We also need smaller reactors.

If the Japanese can just understand that Chernoybl was one hundred times worse than both of the bombs combined that we dropped in the war. They may begin to understand that a bomb that might cut this nuclear damage down by

half.. possibly more. Is really not a bad thing at this point. Even here in America we will be far better off to have that fall out than the reactors fall out. Nuclear energy can be used for good... just like treatments for cancer.

I don't know if our experts are just being too respectful to tell them the truth... but I do know some one needs to get real with the Japanese quick.

Sorry to keep sending bad news... but it is only bad news if you look at it that way. In my opinion, having any option left at this point is good news for the Japanese. Except, they have a volcano named Naruko which is in Osaki in Miyagi Prefecture... close enough to Fukushima to do real damage. It's lake may have a ph of 1.6 between that and the quakes it is likely this volcano is working towards a eruption. Sorry, there is no good news about that... but just wanted to make certain that is known as well.

It may take a total of three bombs to really do the best job. It would be good to spread them out. Definitely do not use a hydrogen bomb. The three best targets are one between the four reactors, one between reactors five and six and one on the dry storage building that has over one thousand tons of waste.

We really need international laws that regulate the number of reactors per site, their size, design and locations.

Karen Sherry Brackett

Vias, Steven

From: Karen Brackett [REDACTED] (b)(6)
Sent: Sunday, March 27, 2011 4:49 AM
To: Vias, Steven
Subject: Entering Worse Worse Case Scenario Now

Indecision is killing Japan... and now America is at risk.

If you breathe in natural uranium ... you might live long enough to develop lung cancer... but if you breathe in any plutonium your kidneys and organs shut down within six months and you die very painfully...if you are lucky... if you aren't you die within hours, days or weeks. A few can survive it but they are the exceptions and not the common rule. The ocean is not a calm still body of water... Every time a wave rolls... it will move these contaminants into the air as well as being in the water.

I remember reading of underwater nuclear bomb tests years ago off the coast of the Aleutian Islands... nineteen miles worth of ocean is a lot of water... and an extremely long shot at this point. If the Pacific had no nuclear waste in it at all... it might take a hit like this and be OK... but unfortunately we have been contaminating it for years... They used to dump barrels of waste off ships in the middle of the ocean. Which I certainly hope that is not their plan for this waste water from Japan. WE have got to keep it away from America as long as we can. Ideally, the only way to deal with this contaminated water in the plants would have been to freeze it with nitrogen gas and keep it frozen in barrels and then bury it in the deepest coldest region of Antarctica that you can find and survive reaching. This would be a massive undertaking just to deal with water that is ten million times above normal when it's got plutonium in it.

Here's the problem though: It's got so much salt... which is lowering the boiling point temperature and raising the freezing point temperature. Just like it would be very hard to freeze... say Antifreeze or even Vodka for instance... It's going to be that hard to freeze this contaminated water now. On top of which I am still against sending any operator or engineer or volunteer in there... because the odds of stopping these criticalities right now... is still against us and their health risk is too high to take.

The longer they wait the worse this is going to get. This is not Chernobyl... this is at the very least twenty times worse. This is a world crisis. That has will effect more than just Japan. It is time the world gets to have a say in how this is being handled. Japan needs help. The United Nations needs to come into play now. They need to decide for the protection of Southern Japan and for the world.. to talk to Japan about bombing Fukushima.

The truth is we should have bombed them ourselves within the first three days. As awful as that sounds... it would have been more humane than what this contamination will do now.

America is no longer in a safe seat. WE can no longer calm that the effect will be too small to effect us. It won't be something that you can see in six months.. but it will be a life span cut of approximately ten years off of every adult's life span on the West Coast of America... and even more so for the children and the ones who are not even born yet. It will cut approximately five years off the life span of every American on the East Coast of America. For Europe it will take off one or two years.

This is the greatest crime against humanity that has ever been committed. Not to mention the fact that there are now over eighty thousand man made chemicals polluting our environment.

May God Forgive Us All.

Karen Sherry Brackett

It's after four in the morning. So, I do apologize for all typos. But I have to say... I am so upset with whoever made this judgement call to start putting water on this problem to begin with... and to put unprotected workers into that environment. Their personal protective equipment is not rated for plutonium exposure... nor should they have only been wearing respirators... they needed scuba tanks for oxygen. I suspect the quake must have destroyed their gear... or else some one has been cheating them of it since the plant opened.... which makes them the worst serial killer or mass murderer in history. Japan has a lot of explaining to do... and so do a lot of our "top" scientists and government officials. Because of the low pay in the nuclear industry... and the high pay on WallStreet I am beginning to suspect... the students who did the worst in college science ended up with the weight of the greatest responsibility in our country... and it is not their fault... It's is the greed of the owners and the contractors who charge billions for building something just because it has the name nuclear attached to it... when in fact... it should not cost more to build a nuclear reactor than it would to build a new hotel. However, it is the fault of any scientist in the nuclear industry to risk the lives of millions to pretend they are smarter than they are... just to benefit their own ego. I have lost respect for the entire industry... and do not believe nuclear energy can help save this planet anymore... not because the science is not there... because it is... but because there are too few good people there to make it happen anymore.

When we start paying twenty million for a nuclear plant and seven hundred thousand dollar bonuses to the nuclear operators... that this will change.

Vias, Steven

From: Karen Brackett [REDACTED] (b)(6)
Sent: Monday, March 28, 2011 1:38 AM
To: Vias, Steven
Subject: Good the UN is stepping in

At this point, TEPCO's readings are no longer trust worthy. From the damage documented in the photos and the amounts of fuel and waste that they have reported are there... the calculations for radiation are just too dangerous to be there. Plus, who knows now if they even know the correct amounts of fuel at their complex.

This creates a whole new perspective on international law that needs to be developed for nuclear energy.

One thing is for certain they seem to be under a false impression that they have a luxury of weeks or even months to figure this thing out and finally do something appropriate about it... and unfortunately... they don't have that much time.... They can't pump water forever... or they will end up with a massive plutonium plume under the entire country of Japan... just like the thirteen acre one here under Erwin. Rain can not be stopped... so the spread of radiation from rain alone is going to happen... but they can stop pumping water and destroying their water table at least. It looks to me like they have two giant gas tanks in the corner of their complex... maybe one of those is nitrogen? If it is ... that is really the only thing that will buy them some time.... If they have been pumping clean water for two days now... they have about all of the salt out of there they will be able to remove... They should stop the water and slowly add nitrogen gas as needed until all of the water is out... with any luck there is still enough sodium in the water that it won't freeze before draining. However, even if it does freeze some of the water before it is all out... that's still better than what they are doing.

What really concerns me... are all of the unknowns... the sea water has pumped in there.... nitrogen is going to be risky. Anytime, you start dealing with this many organics from the sea water... you have about a trillion piece puzzle to try to figure out... and that's just impossible really. Personally, because of the risk of explosion from adding nitrogen now... and the risk of explosion from not adding cooling water... I am still for the nuclear bombs... at least the explosion from those would be large enough to do some good while explosions lower... will only make the contamination worse.

Karen Sherry Brackett

Musser, Randy

From: Musser, Randy
Sent: Monday, March 28, 2011 7:54 AM
To: Croteau, Rick
Subject: Re: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Rick,

In item 2 below, it states to forward info to Pam Henderson. It appears that this is a R1 person? If so, is there a R2 person we should send it to in lieu of Pam?

This email is being sent from an NRC Blackberry device.

From: Croteau, Rick
To: R2DRP_ALL
Sent: Mon Mar 28 07:26:14 2011
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Please observe the following guidance:

- 1) If licensees voluntarily provide REMP sample results (particularly indicating I-131 or other elevated isotopes believed to be tied to the Japanese events) to the resident inspectors, then the residents should inquire as to whether the licensee has provided the same info through its formal NEI channel, per the arrangement reached between the agency and NEI. If not, then the licensee should be requested to do so.
- 2) As a courtesy, residents should notify the region by email (their BC and Pam Henderson) and cc the HOO, confirming that the licensee has informed NEI.
- 3) Residents should request that the licensee provide future such sample results directly to NEI, and that they only inform the resident inspectors for awareness and to keep the residents updated on any information that may implicate the licensee's own REMP for the site involved.
- 4) Obviously, any radiological information that may pose a threat to health and safety of the residents or plant workers should be communicated to the residents.
- 5) Reporting requirements or arrangements for normal REMP activities should not be affected or altered by this direction.

Thanks,
Rick

From: Munday, Joel
Sent: Friday, March 25, 2011 6:33 PM
To: Croteau, Rick; Jones, William
Subject: Fw: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

See below

This email is being sent from an NRC Blackberry device.

From: Bonser, Brian
To: Munday, Joel; Christensen, Harold

Sent: Fri Mar 25 17:25:20 2011

Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Joel,

Looks like HQ likes the path Region I has proposed. I recommend DRP give this guidance to their resident inspectors.

Brian R. Bonser

Chief, Plant Support Branch 1

Division of Reactor Safety, Region II

U.S. Nuclear Regulatory Commission

404-997-4653

From: Shoop, Undine

Sent: Friday, March 25, 2011 5:03 PM

To: Bonser, Brian

Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Importance: High

Brian,

This is what RI is proposing with the only change being that the HOO does not want to receive the information, they will wait for NEI to provide a final.

Hope this helps!

Undine

From: Brown, Frederick

Sent: Friday, March 25, 2011 4:23 PM

To: Roberts, Darrell

Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter; Shoop, Undine; Morris, Scott; Evans, Michele; Holahan, Patricia; McDermott, Brian; Meighan, Sean

Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Importance: High

Darrell,

Outstanding! I'll defer to Scott Morris (I've added him to distribution) on whether the HOOs want a courtesy copy of the e-mail or not (I suspect not).

Fred

From: Roberts, Darrell

Sent: Friday, March 25, 2011 2:17 PM

To: Brown, Frederick; Shoop, Undine

Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter

Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Fred,

Given all of the below and other e-mails on the subject, I've proposed the following advice be provided to our residents here in RI:

- 6) If licensees voluntarily provide REMP sample results (particularly indicating I-131 or other elevated isotopes believed to be tied to the Japanese events) to the resident inspectors, then the residents should inquire as to whether the licensee has provided the same info through its formal NEI channel, per the arrangement reached between the agency and NEI. If not, then the licensee should be requested to do so.
- 7) As a courtesy, residents should notify the region by email (their BC and Pam Henderson) and cc the HOO, confirming that the licensee has informed NEI.
- 8) Residents should request that the licensee provide future such sample results directly to NEI, and that they only inform the resident inspectors for awareness and to keep the residents updated on any information that may implicate the licensee's own REMP for the site involved.
- 9) Obviously, any radiological information that may pose a threat to health and safety of the residents or plant workers should be communicated to the residents.
- 10) Reporting requirements or arrangements for normal REMP activities should not be affected or altered by this direction.

DJR

From: Brown, Frederick
Sent: Friday, March 25, 2011 12:42 PM
To: Shoop, Undine
Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Roberts, Darrell; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

FYI – a minor change, consistent with what some of you had heard.

From: Evans, Michele
Sent: Friday, March 25, 2011 12:40 PM
To: Weber, Michael; Leeds, Eric; Holahan, Patricia
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Wiggins, Jim; Ruland, William; Brown, Frederick; Dyer, Jim; PMT01 Hoc; LIA06 Hoc; LIA08 Hoc; ET01 Hoc; ET05 Hoc; OST02 HOC; Zimmerman, Roy
Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Mike,

We've been working this and gave the ok to send the information to the HOO. Goal is to task items to the line organization since unclear how long PMT function will be stood up.

Thanks
Michele

From: Weber, Michael
Sent: Friday, March 25, 2011 11:52 AM
To: Leeds, Eric; Holahan, Patricia; Evans, Michele
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Wiggins, Jim; Ruland, William; Brown, Frederick; Dyer, Jim; PMT01 Hoc; LIA06 Hoc; LIA08 Hoc; ET01 Hoc; ET05 Hoc; OST02 HOC; Zimmerman, Roy
Subject: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Send it to PMT01 HOC.

Thanks, Eric. Looks like we ended up at the right place!

From: Leeds, Eric
To: Holahan, Patricia; Evans, Michele
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Weber, Michael; Wiggins, Jim; Ruland, William; Brown, Frederick
Sent: Fri Mar 25 10:51:17 2011
Subject: Heads up!: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Please see below. I've discussed with Borchardt and NEI. We plan to be the broker of information from the industry through NEI to the federal family. We do NOT want folks from EPA or DOE or anywhere else going directly to NEI. We have an established relationship and it's in our best interest to broker the info. NEI does NOT want to deal with all the other feds – they are happy to leave it to us. We are not planning on issuing a generic communication on the subject.

Please let my TA – Sean Meighan, know who NEI should interface with to feed the info into the Ops Center and please help coordinate that info to our colleagues in EPA and DOE.

Thank you!

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: MARION, Alex [mailto:axm@nei.org]
Sent: Friday, March 25, 2011 9:55 AM
To: Leeds, Eric
Subject: FW: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

From: ANDERSEN, Ralph
Sent: Friday, March 25, 2011 9:53 AM
To: MARION, Alex
Subject: RE: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Ray Clark.

From: MARION, Alex
Sent: Friday, March 25, 2011 9:52 AM
To: ANDERSEN, Ralph
Subject: RE: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Who was the EPA contact?

From: ANDERSEN, Ralph
Sent: Friday, March 25, 2011 9:34 AM
To: MARION, Alex
Cc: PIETRANGELO, Tony; ANDERSON, Ellen
Subject: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

We were contacted yesterday afternoon by the USEPA Emergency Operations Center Environmental Unit to see if we would be able to provide environmental monitoring data from the U.S. nuclear power plants reflecting possible releases from the Fukushima plant.

In our follow up discussion with the EPA staff this morning, they indicated that they had been tasked by the Office of Science and Technology Policy (OSTP) to compile and trend available U.S. environmental monitoring information and provide the results to the OSTP.

We will proceed with implementing a process for collecting the information on a standardized and routine basis for to the NRC, USEPA or others.

Ralph L. Andersen, CHP
Senior Director, Radiation Safety & Environmental Protection

Nuclear Energy Institute
1776 I St. N.W., Suite 400
Washington, DC 20006
www.nei.org

Phone: 202-739-8111

Fax: 202-533-0101

Mobile: (b)(6)

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Sent through mail.messaging.microsoft.com

Crowe, Eddy

From: Shaeffer, Scott
Sent: Monday, March 28, 2011 10:09 AM
To: Rose, Steven; Crowe, Eddy
Subject: Fw: NRC Posts Updated Seismic Questions and Answers
Attachments: 11-053.pdf

This email is being sent from an NRC Blackberry device.

From: Musser, Randy
To: Bartley, Jonathan; Shaeffer, Scott; Rich, Daniel; McCoy, Gerald; Guthrie, Eugene
Sent: Mon Mar 28 11:07:52 2011
Subject: FW: NRC Posts Updated Seismic Questions and Answers

As discussed in this morning's meeting.

From: Croteau, Rick
Sent: Monday, March 21, 2011 9:04 AM
To: Musser, Randy
Subject: FW: NRC Posts Updated Seismic Questions and Answers

Please bring copies of this to the EOC meeting. 25 copies?

From: McCree, Victor
Sent: Monday, March 21, 2011 8:46 AM
To: Croteau, Rick; Jones, William; Munday, Joel; Wert, Leonard; Gody, Tony; Cobey, Eugene
Cc: Ledford, Joey; Hannah, Roger
Subject: FW: NRC Posts Updated Seismic Questions and Answers

See attached. You may want to make copies of these Q&As and make them available for members of the public at the upcoming EOC and LPR meetings.

Vic

From: OST05 Hoc
Sent: Monday, March 21, 2011 7:57 AM
To: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Haral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; Piccone, Josephine; Jackson, Deborah
Subject: NRC Posts Updated Seismic Questions and Answers

NRC posted a series of seismic and tsunami Q's and A's over the weekend.

Feel free to forward to interested stakeholders.

Crowe, Eddy

From: Shaeffer, Scott
Sent: Monday, March 28, 2011 10:01 AM
To: Rose, Steven; Crowe, Eddy
Subject: Fw: Japanese Sharepoint Site

This email is being sent from an NRC Blackberry device.

From: Musser, Randy
To: Shaeffer, Scott
Sent: Mon Mar 28 11:00:08 2011
Subject: FW: Japanese Sharepoint Site

From: Musser, Randy
Sent: Monday, March 28, 2011 10:33 AM
To: McCoy, Gerald; Kolcum, Gregory
Subject: Japanese Sharepoint Site

<http://portal.nrc.gov/edo/nrr/NRR%20TA/FAQ%20Related%20to%20Events%20Occuring%20in%20Japan/Forms/AllItems.aspx>

Coovert, Nicole

From: NEI SmartBrief [nei@smartbrief.com]
Sent: Monday, March 28, 2011 11:59 AM
To: Coovert, Nicole
Subject: March 28, 2011 - Fertel: Industry is working to enhance safety of nuclear plants

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News Roundup

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Fertel: Industry is working to enhance safety of nuclear plants



OPINION

The U.S. nuclear industry is already taking necessary measures to improve the safety of existing facilities and new projects in light of the reactor crisis in Japan, writes Marvin Fertel, president and CEO of the Nuclear Energy Institute. Workers are confirming each plant's capability to handle extreme conditions, particularly the loss of key safety systems. These efforts are under way even though such facilities

are built to withstand earthquakes and tsunamis, Fertel adds. [CNN](#) (3/25) Share: [in](#) [f](#) [t](#) [E-MAIL](#)

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Expert links flawed venting system to Fukushima Daiichi blasts

A failed venting system led to hydrogen blasts that damaged the metal roofs of two reactors at the Fukushima Daiichi nuclear plant in Japan, said Lake Barrett, a former Nuclear Regulatory Commission official. "To prevent a catastrophic primary-containment system failure, the operators vented the primary containment through the safety venting system trying to reject heat and excess gases up the 100-meter-tall stacks at the plants," he wrote in an analysis. [The New York Times](#) (free registration)/[ClimateWire](#) (3/25) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

Japanese safety regulations were inadequate, observers say

Safety measures at Japanese nuclear plants relied on outdated science and did not adequately prepare for the possibility of a tsunami, this article notes. Defenses against rising seas in the event of typhoons outside the Fukushima Daiichi plant were easily topped by the tsunami this month. Regulators said Tokyo Electric Power only raised an electric pump by 8 inches in response to a 2002 report that found the plant's bluff needed to be several feet higher to protect the facility. [The New York Times](#) (free registration) (3/26) Share: [in](#) [f](#) [t](#) [E-MAIL](#)

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TVA pitches safety of Browns Ferry nuclear plant

The Tennessee Valley Authority on Friday presented its Browns Ferry nuclear plant in Tennessee to reporters in an effort to show that the facility can withstand natural disasters like the one that has crippled the Fukushima Daiichi plant in Japan. Browns Ferry is situated on the banks of the Tennessee River, but it is prepared for "a one-in-a-million-year flood, or however many zeroes you want to go out," said Preston Swafford, TVA's chief nuclear officer. [The New York Times](#) (free registration) (3/26) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

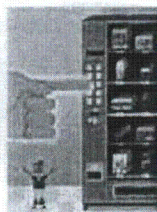
Southern Co. takes key licensing milestone for Ga. nuclear project

The Nuclear Regulatory Commission found no environmental concerns that would preclude licensing of Southern Co.'s two planned reactors in Georgia. "It's very positive that our Vogtle project is moving forward on schedule and as planned," said Beth Thomas, a company spokeswoman. [The Wall Street Journal](#) (3/26) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

New Jersey forms nuclear-safety task force

New Jersey's Department of Environmental Protection has established a task force to assess safety plans at the state's nuclear facilities. The panel, which comprises officials from the state police, homeland security department and utility board, will begin operations this week. "We want to ensure all proper safety protocols and preventative measures are in place to protect the residents of New Jersey from ever having to experience a nuclear emergency," Gov. Chris Christie said. [The Wall Street Journal/The Associated Press](#) (3/25) Share: [in](#) [f](#) [t](#) [E-MAIL](#)

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Nudge Your Customers

Well-designed default options drive profits, simplify processes, enhance customer satisfaction, and reduce risk. Poor defaults leave money on the table, fuel consumer backlashes, and even trigger lawsuits. Based on a decade of research, this HBR article describes default options and suggest when to use each. [Order here.](#)

Policy Watch

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Senate committee to hold hearing on Japan reactor crisis

The Senate Energy and Natural Resources Committee will hold a hearing this week on the U.S. implications of the Japanese nuclear crisis. Officials from the Department of Energy, Nuclear Regulatory Commission and Nuclear Energy Institute will testify. [The Hill/E2 Wire blog](#) (3/25)

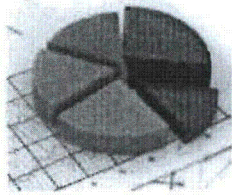
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Don't let fear dictate energy policy, congressman says

The U.S. should not shy away from nuclear energy, despite the Japanese earthquake, because American plants are safer, writes Rep. Brian Bilbray, R-Calif. "Consider the safety standards of the San Onofre Nuclear Generating Station. San Onofre has redundant safety systems to provide cooling for its reactors. These systems are able to avoid combustion should a hydrogen surge occur similar to those that caused explosions at Fukushima Daiichi," he writes. [San Diego Union-Tribune](#) (3/27) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)

Ill. senators seek review of used-fuel reprocessing plans

The U.S. should review reprocessing plans for used nuclear fuel in the aftermath of the Japan reactor crisis, said Sens. Dick Durbin, D-Ill., and Mark Kirk, R-Ill. "I have voted for Yucca Mountain," Durbin said. "It's been a serious mistake that we have backed off this reprocessing issue." [Bloomberg Businessweek](#) (3/25) Share: [in](#) [f](#) [t](#) [E-MAIL](#) [RELATED STORIES](#)



The buzz around social media - and whether it is worth the effort - continues to be a leading business concern. SmartBrief's ***State of Social Media for Business*** sheds light on obstacles & opportunities in using social media to produce measurable results. [Check out the State of Social Media for Business.](#)

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How to get employees to appreciate their benefits

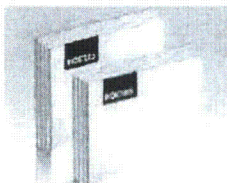
For most companies, benefit costs are hefty. That's all the more reason to make sure employees understand the value of their benefits, writes Janet McNichol, human resources director at the American Speech-Language-Hearing Association. Companies can require employees to make an active decision about benefits and reach out to their families as well. "Your staff members are more likely to appreciate the benefits you're spending so much money on when you do a good job of structuring the decisions they need to make and educating them," McNichol writes. [SmartBrief/SmartBlog Insights \(3/24\)](#) Share: [in](#) [f](#) [t](#) [E-MAIL](#)

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Pay-for-performance programs need to be simple, targeted

Poorly designed pay-for-performance programs can lead to resentment among employees and undesirable results for the company, experts say. They advise establishing measurable goals, keeping track of the program's progress and keeping it simple. "Pay-for-performance needs to be spelled out or employees can become demotivated and disgruntled," says Lynn Brown, managing director of a human resources consulting firm. [The Globe and Mail \(Toronto\) \(3/23\)](#)

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This updated Buyer's Guide from Focus will help you fully understand both your business phone system needs as well as the purchase process. Compare features and read advice from other buyers. [Click Here](#) to learn more.

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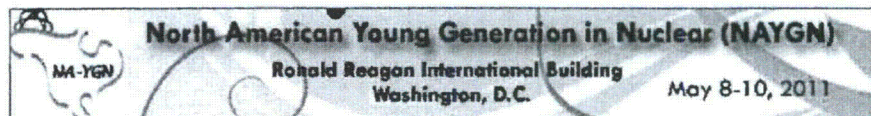
Japanese utilities delay planned reactor restarts

Japanese utilities are postponing plans to reopen nuclear facilities and construct new ones because of radiation fears involving Tokyo Electric Power's Fukushima Daiichi plant. Japan has 54 reactors, 14 of which went offline after the earthquake and tsunami. [The Wall Street Journal](#) (3/26) Share: [in](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Other News

Cameco CEO is still optimistic on nuclear energy's prospects

The New York Times (free registration) (3/25) Share: [in](#) [f](#) [c](#) [E-MAIL](#)



SmartQuote

“The wheel goes round and round, some are up and some are on the down, and still the wheel goes round.”

--Josephine Pollard,
American author

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This SmartBrief was created for Nicole.Coovert@nrc.gov

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Mailing Address:

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Vias, Steven

From: Karen Brackett (b)(6)
Sent: Tuesday, March 29, 2011 12:00 AM
To: Vias, Steven
Subject: Dr. Michio Kaku Video on ABC

<http://news.yahoo.com/video/world-15749633/24686812>

Wow, I just came across this... looks like he is thinking what I have been thinking. You know what... as scary as the thought of dropping a nuclear bomb is... this really may help the ozone layer. It will take it a year to re-distribute it into place. So, we won't know for awhile... but prayerfully this will work... and be a very good thing.

Karen Sherry Brackett

Mendez-Gonzalez, Sandra

From: Morrissey, Thomas
Sent: Tuesday, March 29, 2011 6:01 AM
To: Rich, Daniel
Cc: Bonser, Brian; Kuzo, George; Ninh, Son; Reyes, Rogerio; Childs, Natasha; Mendez-Gonzalez, Sandra
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Background:

I-131 was picked up on weekly RMA2 charcoal and particulate filter (NCR 455397, 3/24/11). The charcoal filter indicated $1.34\text{E-}13\text{uc/cc}$ and the particulate filter was $1.69\text{E-}15\text{ uc/cc}$. It is believed to be the result of the Japan nuclear plant incidents since the unit is currently shutdown with no I-131 present in the RCS system.

I contacted the chemistry manager, who was unaware of any reporting requirements to NEI. He later determined that Progress Energy Corporate will gather the information from all Progress Energy sites and will provide the information to NEI (Ellen Anderson) on a continuing basis. He also understands to keep the resident inspectors informed of any future sample results.

From: Croteau, Rick
Sent: Monday, March 28, 2011 11:09 AM
To: R2DRP_ALL
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Please include George Kuzo on the emails also.
Thanks,
Rick

From: Croteau, Rick
Sent: Monday, March 28, 2011 9:07 AM
To: R2DRP_ALL
Cc: Bonser, Brian; Munday, Joel
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

A couple of corrections. For item 2, email Brian Bonser rather than Pam Henderson and there is no need to cc the HOO.

From: Croteau, Rick
Sent: Monday, March 28, 2011 7:26 AM
To: R2DRP_ALL
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Please observe the following guidance:

- 1) If licensees voluntarily provide REMP sample results (particularly indicating I-131 or other elevated isotopes believed to be tied to the Japanese events) to the resident inspectors, then the residents should inquire as to whether the licensee has provided the same info through its formal NEI channel, per the arrangement reached between the agency and NEI. If not, then the licensee should be requested to do so.

- 2) As a courtesy, residents should notify the region by email (their BC and Pam Henderson) and cc the HOO, confirming that the licensee has informed NEI.
- 3) Residents should request that the licensee provide future such sample results directly to NEI, and that they only inform the resident inspectors for awareness and to keep the residents updated on any information that may implicate the licensee's own REMP for the site involved.
- 4) Obviously, any radiological information that may pose a threat to health and safety of the residents or plant workers should be communicated to the residents.
- 5) Reporting requirements or arrangements for normal REMP activities should not be affected or altered by this direction.

Thanks,
Rick

From: Munday, Joel
Sent: Friday, March 25, 2011 6:33 PM
To: Croteau, Rick; Jones, William
Subject: Fw: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

See below

This email is being sent from an NRC Blackberry device.

From: Bonser, Brian
To: Munday, Joel; Christensen, Harold
Sent: Fri Mar 25 17:25:20 2011
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Joel,

Looks like HQ likes the path Region I has proposed. I recommend DRP give this guidance to their resident inspectors.

Brian R. Bonser

Chief, Plant Support Branch 1
Division of Reactor Safety, Region II
U.S. Nuclear Regulatory Commission
404-997-4653

From: Shoop, Undine
Sent: Friday, March 25, 2011 5:03 PM
To: Bonser, Brian
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Brian,

This is what RI is proposing with the only change being that the HOO does not want to receive the information, they will wait for NEI to provide a final.

Hope this helps!
Undine

From: Brown, Frederick

Sent: Friday, March 25, 2011 4:23 PM

To: Roberts, Darrell

Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter; Shoop, Undine; Morris, Scott; Evans, Michele; Holahan, Patricia; McDermott, Brian; Meighan, Sean

Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Importance: High

Darrell,

Outstanding! I'll defer to Scott Morris (I've added him to distribution) on whether the HOOs want a courtesy copy of the e-mail or not (I suspect not).

Fred

From: Roberts, Darrell

Sent: Friday, March 25, 2011 2:17 PM

To: Brown, Frederick; Shoop, Undine

Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter

Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Fred,

Given all of the below and other e-mails on the subject, I've proposed the following advice be provided to our residents here in RI:

- 6) If licensees voluntarily provide REMP sample results (particularly indicating I-131 or other elevated isotopes believed to be tied to the Japanese events) to the resident inspectors, then the residents should inquire as to whether the licensee has provided the same info through its formal NEI channel, per the arrangement reached between the agency and NEI. If not, then the licensee should be requested to do so.
- 7) As a courtesy, residents should notify the region by email (their BC and Pam Henderson) and cc the HOO, confirming that the licensee has informed NEI.
- 8) Residents should request that the licensee provide future such sample results directly to NEI, and that they only inform the resident inspectors for awareness and to keep the residents updated on any information that may implicate the licensee's own REMP for the site involved.
- 9) Obviously, any radiological information that may pose a threat to health and safety of the residents or plant workers should be communicated to the residents.
- 10) Reporting requirements or arrangements for normal REMP activities should not be affected or altered by this direction.

DJR

From: Brown, Frederick

Sent: Friday, March 25, 2011 12:42 PM

To: Shoop, Undine

Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Roberts, Darrell; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter

Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

FYI – a minor change, consistent with what some of you had heard.

From: Evans, Michele
Sent: Friday, March 25, 2011 12:40 PM
To: Weber, Michael; Leeds, Eric; Holahan, Patricia
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Wiggins, Jim; Ruland, William; Brown, Frederick; Dyer, Jim; PMT01 Hoc; LIA06 Hoc; LIA08 Hoc; ET01 Hoc; ET05 Hoc; OST02 HOC; Zimmerman, Roy
Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Mike,

We've been working this and gave the ok to send the information to the HOO. Goal is to task items to the line organization since unclear how long PMT function will be stood up.

Thanks
Michele

From: Weber, Michael
Sent: Friday, March 25, 2011 11:52 AM
To: Leeds, Eric; Holahan, Patricia; Evans, Michele
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Wiggins, Jim; Ruland, William; Brown, Frederick; Dyer, Jim; PMT01 Hoc; LIA06 Hoc; LIA08 Hoc; ET01 Hoc; ET05 Hoc; OST02 HOC; Zimmerman, Roy
Subject: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Send it to PMT01 HOC.

Thanks, Eric. Looks like we ended up at the right place!

From: Leeds, Eric
To: Holahan, Patricia; Evans, Michele
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Weber, Michael; Wiggins, Jim; Ruland, William; Brown, Frederick
Sent: Fri Mar 25 10:51:17 2011
Subject: Heads up!: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Please see below. I've discussed with Borchardt and NEI. We plan to be the broker of information from the industry through NEI to the federal family. We do NOT want folks from EPA or DOE or anywhere else going directly to NEI. We have an established relationship and it's in our best interest to broker the info. NEI does NOT want to deal with all the other feds – they are happy to leave it to us. We are not planning on issuing a generic communication on the subject.

Please let my TA – Sean Meighan, know who NEI should interface with to feed the info into the Ops Center and please help coordinate that info to our colleagues in EPA and DOE.

Thank you!

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: MARION, Alex [mailto:axm@nei.org]
Sent: Friday, March 25, 2011 9:55 AM
To: Leeds, Eric
Subject: FW: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

From: ANDERSEN, Ralph
Sent: Friday, March 25, 2011 9:53 AM
To: MARION, Alex
Subject: RE: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Ray Clark.

From: MARION, Alex
Sent: Friday, March 25, 2011 9:52 AM
To: ANDERSEN, Ralph
Subject: RE: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Who was the EPA contact?

From: ANDERSEN, Ralph
Sent: Friday, March 25, 2011 9:34 AM
To: MARION, Alex
Cc: PIETRANGELO, Tony; ANDERSON, Ellen
Subject: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

We were contacted yesterday afternoon by the USEPA Emergency Operations Center Environmental Unit to see if we would be able to provide environmental monitoring data from the U.S. nuclear power plants reflecting possible releases from the Fukushima plant.

In our follow up discussion with the EPA staff this morning, they indicated that they had been tasked by the Office of Science and Technology Policy (OSTP) to compile and trend available U.S. environmental monitoring information and provide the results to the OSTP.

We will proceed with implementing a process for collecting the information on a standardized and routine basis for to the NRC, USEPA or others.

Ralph L. Andersen, CHP
Senior Director, Radiation Safety & Environmental Protection

Nuclear Energy Institute
1776 I St. N.W., Suite 400
Washington, DC 20006
www.nei.org

Phone: 202-739-8111
Fax: 202-533-0101
Mobile: (b)(6)
Email: rla@nei.org

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Sent through mail.messaging.microsoft.com

Wert, Leonard

From: Wert, Leonard
Sent: Tuesday, March 29, 2011 8:04 AM
To: Croteau, Rick; Jones, William
Cc: Munday, Joel
Subject: FW: Funding Needs for Japan Follow-up

No action for us, heads up that questions may come in future. I think our answer at this point, other than the costs of those in Japan and the extra travel associated with the public meetings, the TI budget will cover most of the rest of our work to date. Len

From: R2ORAMailCenter Resource
Sent: Monday, March 28, 2011 6:08 PM
To: Wert, Leonard; Lee, Pamela
Cc: Miles, Patricia
Subject: FW: Funding Needs for Japan Follow-up

Len,

This appears to be an action item, but I am not sure of the due date.

From: RidsRgn2MailCenter Resource
Sent: Tuesday, March 22, 2011 11:04 AM
To: R2ORAMailCenter Resource
Subject: FW: Funding Needs for Japan Follow-up

From: Kasputys, Clare
Sent: Monday, March 21, 2011 3:07 PM
To: RidsNroOd Resource; RidsNrrOd Resource; RidsNsirOd Resource; RidsResOd Resource; RidsFsmeOd Resource; RidsNmssOd Resource; RidsOgcMailCenter Resource; RidsCsoMailCenter Resource; RidsRgn1MailCenter Resource; RidsRgn2MailCenter Resource; RidsRgn3MailCenter Resource; RidsRgn4MailCenter Resource; RidsOipMailCenter Resource
Cc: RidsNrrPmda Resource; RidsNroPmda Resource; RidsNsirPmda Resource; RidsResPmdaMail Resource; RidsFsmePbpaFmb Resource; RidsNmssTa Resource; Golder, Jennifer; Smolik, George; Muessle, Mary; Andersen, James; Jacobs-Baynard, Elizabeth; Allwein, Russell; Peterson, Gordon; Peterson, Gordon; Virgilio, Martin; Virgilio, Martin; Weber, Michael; Weber, Michael; Ash, Darren; Ash, Darren
Subject: Funding Needs for Japan Follow-up

All,

The Chairman has requested for the NRC to conduct a Near-term (90 day effort) and a longer-term review (as discussed by Bill B at the Commission meeting today) of regulatory issues affecting U.S. operating reactors based on the events in Japan. The Chairman is interested in seeking supplemental funding to support our efforts for the above effort, in addition to NRC's costs associated with emergency response and technical experts sent to Japan. OCFO is preparing cost data associated with emergency response and technical support to Japan.

On Friday, the OCFO requested some initial estimates to support the reviews (see attached). At this time, we are requesting the offices to review these initial estimates and include some information concerning the work that is envisioned to support these reviews. Listed below are some initial thoughts about the scope of the near-term and long-term reviews. Also, consider what on-going efforts related to the development of our regulatory program could benefit with supplemental funding. For example, it was mentioned in the

Commission meeting that NRC is currently working on GSI-199. Should funding be accelerated for this effort and others of this nature.

Near Term Review (90 day effort):

- Evaluate currently available technical and operational information from the Japan event to identify near-term (or immediate) operational or regulatory issues affecting U.S. operating reactors of all designs in areas such as protection against earthquakes, tsunami, flooding, hurricanes, station blackout and a degraded ability to restore power; severe accident mitigation and emergency preparedness
- Develop recommendations for generic communications, orders, changes to inspection procedures and licensing review guidance, etc.
- Possibly prepare a 30 day quick look report

Longer-Term Review (Following obtaining sufficient technical information from the Japan event)

- Evaluate all technical and policy issues related to the event to identify additional research, generic issues, changes to the reactor oversight process, rulemakings and adjustments to the regulatory framework that should be conducted by the NRC.
- Evaluate interagency issues such as emergency preparedness.
- Applicability of the lessons learned to non-operating reactor and non-reactor facilities.

It is recognized that the full scope of the reviews has yet to be determined or the size of the group that will be conducting the analysis. Therefore, we are looking only for rough cost estimates. You are requested to send the level of funding (dollars and FTE) that is anticipated that could be obligated in FY 2011 for both the near-term and long-term efforts. We are asking the business line leads to coordinate with supporting offices and submit a response by business line and by office. Please send your responses to me and Liz Jacobs-Baynard and copy Jennifer Golder and George Smolik, OCFO NLT than Noon on Tuesday.

If you have any questions, please let me know.

Thank you for your support.

O'Donohue, Kathleen

From: Devercelly, Richard
Sent: Tuesday, March 29, 2011 9:32 AM
To: O'Donohue, Kathleen
Cc: Devercelly, Richard
Subject: RE: New OpE COMM: International - Tohoku-Taiheiyou-Oki Earthquake and Tsunami (Honshu, Japan)

Excellent writeup. Thanks for forwarding to me.

Richard W. DeVercelly
BWR Training Branch
USNRC TTC, Chattanooga, TN
richard.devercelly@nrc.gov
423-855-6524

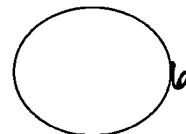
From: O'Donohue, Kathleen
Sent: Tuesday, March 29, 2011 6:12 AM
To: Devercelly, Richard
Subject: FW: New OpE COMM: International - Tohoku-Taiheiyou-Oki Earthquake and Tsunami (Honshu, Japan)

I think this is one of the best OE write-ups I have read. I am assuming most if not all is accurate?

Kathleen O'Donohue

Branch Chief, Construction Inspection - Branch 2
404-997-4469 (o), (b)(6) (c)
NEW EMAIL: Kathleen.O'Donohue@NRC.GOV

From: Garmon, David
Sent: Monday, March 28, 2011 3:34 PM
Subject: New OpE COMM: International - Tohoku-Taiheiyou-Oki Earthquake and Tsunami (Honshu, Japan)



This email is being sent to notify recipients of a new posting on the @Operating Experience Community Forum.

Recipients are expected to review the posting for applicability to their areas of regulatory responsibility and consider appropriate actions. However, information contained in the posting is not tasking; therefore, no specific action or written response is required.

Information Security Reminder: OpE COMMs contain preliminary information in the interest of timely internal communication of operating experience. OpE COMMs may be pre-decisional and may contain sensitive/proprietary information. They are not intended for distribution outside the agency

The posting may be reviewed at: Tohoku-Taiheiyou-Oki Earthquake and Tsunami (Honshu, Japan)

This COMM is being posted to the following groups: **All Communications, Chemistry/Chemical Engineering, Containment (leakage, degradation, cooling system performance), Control Room Habitability, Dose Assessment, ECCS, Electrical Power Systems, Emergency Diesel Generators, Emergency Preparedness, Fire Protection, Flood Protection & Missiles, Fuels, Health Physics, Human Performance, HVAC, Inspection Programs, Instrumentation and Controls, Main Steam &**

Desai, Binoy

From: Norkin, Donald
Sent: Tuesday, March 29, 2011 9:19 AM
To: Kobetz, Timothy; Isom, James; Doerflein, Lawrence; Desai, Binoy; Stone, AnnMarie; Farnholtz, Thomas
Subject: FW: Fukushima Daiichi Event

See below comments from Craig Baron, a Beckman contractor who has performed CDBIs and other NRC design inspections since 1996.

Don

-----Original Message-----

From: Craig Baron [mailto:(b)(6)]
Sent: Monday, March 28, 2011 7:10 PM
To: Norkin, Donald
Subject: Fukushima Daiichi Event

Hi Don,

I was thinking about the potential regulatory impact of the Fukushima Daiichi event on existing US facilities and had a few "high level" thoughts based on having inspected the external event design provisions of a number of plants. I didn't really spend any time on this, I just put down some initial thoughts. I don't know if this is of any use to the folks who are working on the issue, but feel free to pass these observations along as appropriate.

Craig

(b)(6)

Compliance with current design bases: The current CDBI inspections sometimes include components/ operator actions/ scenarios related to design basis external events (selected based on risk). However, these inspections were not designed to specifically focus on external events. In practice; we frequently look at station blackout components and operator actions, we sometimes look at tornado/wind design features (i.e., HVAC tornado dampers, tornado missile protection), and we sometimes look at the susceptibility of specific components (within the inspection scope) to seismic and flooding hazards. We sometimes look at components that have a risk-significant, beyond design basis function (i.e., BWR hard pipe vents, fire pump backup to RHR) and verify the operates capability to take the required actions. We only look at severe accident management guidance/procedures as they pertain to specific risk significant components and/or operator actions. We generally avoid looking at fire events and security events because they are inspected separately. We do not end up looking at spent fuel storage because it is not normally considered to be risk significant with regard to CDF or LERF. Based on the scope of these inspections, I have a few observations related to external events (some of these examples have been documented in inspection reports, some have screen out as minor violations or were just observations).

- On several occasions, we have identified issues related to the capability of the operators to carry out actions outside the control room in the required times for station blackout mitigation. Some of these actions are within the plant buildings, but some are in the switchyard or elsewhere on site. We often find that these types of "outside of control room" activities are infrequently practiced. Note that we do not normally evaluate any other external event in conjunction with the postulated blackout.

- Some plants take credit for sources of alternate AC power that are not within the control of the plant personnel. In some cases the outside personnel may not be readily available to assist in aligning alternate power to the plant (i.e., in one case an unmanned dam could have required a couple of hours to be restarted

after a blackout). Again, external events that could affect the response time of outside personnel are not generally considered.

- Some plants, especially early plants, have fairly vague licensing bases regarding tornado/wind events. We have identified conditions where HVAC tornado dampers were not being tested appropriately, and conditions where the potential impact of tornado depressurization effects on buildings and components had not been analyzed. In one case, the plants licensing basis did not require tornado missile barriers for building openings based on an assumed lack of potential missiles in the area; however, significant amounts of equipment was being stored in the area. Other early designs do not consider missiles traveling in a vertical direction or use a limited spectrum of potential missiles.

- We identified one case where a non-safety structure (a double height water treatment trailer) was installed immediately next to the fuel oil fill connections for both emergency diesel generators without any seismic/wind loading analyses. The licensee was able to demonstrate it would not fall during any design basis events but agreed that it should be secured. We have also identified numerous examples of non-seismic equipment (hoists, tool boxes, removed breakers, ladders, etc.) being stored in the vicinity of vital equipment without evaluations. Temporary equipment, and equipment added by modification seem particularly prone to this type of issue.

- The capability of plants to mitigate external floods often relies on manual actions (i.e., closing doors, sandbagging, etc). In one case, the sandbags were not readily available; in other cases door seals were found to be degraded. These design provisions normally assume that adequate time is available to take these actions. In some cases flood barriers are provided by "non-safety related" components such as check valves in floor drain systems that are not subject to any periodic testing requirements; we generally make the observation that these components should be subject to periodic preventive maintenance at a minimum, but these issues are not normally documented. Some plants have unique flooding hazards (i.e., proximity to earthen levees or man-made reservoirs) and have unique licensing bases that address specific failure modes, such as the partial failure of a man-made dam or berm.

- Some sites have unique external hazards (i.e., ash fallout from a volcano) which result in unusual mitigating actions. For example, the plant with the ash fallout was required to maintain a large supply of replacement air filters to ensure the continued operation of the HVAC and diesel generators. In the case of the ash fallout, we identified that they did not have the required number/types of filters staged but had no basis to question their claims that they could transport and install the filters under adverse conditions (which is allowed by their licensing basis).

Hopefully, these observations will help provide some focus areas for the individuals tasked with verifying that plants meet their current design bases for significant external events.

Observations regarding current design/ licensing bases: In light of the Fukushima Daiichi event, some of the current regulations/requirements regarding design basis events appear somewhat unrealistic. The following are my (longer term) personal observations/opinions:

- In general, the regulations assume that a single external event occurs without any complications. This appears to be unrealistic for very significant (beyond design basis) events where seismic, floods, fires, tornados, and/or station blackout could result from a common cause event. I understand the difficulty of evaluating these events in combination, but if we are going to continue to treat them separately more justification may be required to show that they are truly independent events.

- The station blackout rule is based on the (non-mechanistic) coincidental failure of both the off-site and safety-related on-site power supplies. As a result, the coping/ mitigation strategies allow the use of normal plant equipment and frequently take credit for "black" diesel generators or combustion turbine generators. In practice, these generators are frequently truck mounted or "packaged" units that are not protected from any design external events with their fuel supplies and electrical cable equally exposed. While these designs meet the requirements of the SBO rule, these alternate AC power supplies may not survive an external event

significant enough to result in a loss of off-site power. While these designs will perform their intended function, it is unlikely that they will be useful during a beyond design basis external event. Some dual-unit sites take credit for the emergency diesel generators from one unit to mitigate a station blackout in the other unit. Again, this makes sense for a non-mechanistic failure but may not help mitigate a beyond design basis external event affecting both units.

- The station blackout rule also establishes coping durations based on the reliability of current power supplies (often four hours). The ability to restore AC power within four hours seems to assume that the off-site and on-site power supplies have not suffered a catastrophic failure. Obviously, things could get very challenging after the loss of DC power and the exhaustion of the water supply being used for heat removal. The alignment of alternative water supplies (usually diesel driven fire and/or portable pumps) frequently requires very extensive operator actions; many plants do not seem to train on these scenarios. The recovery of DC power (through the use of battery chargers) may be equally difficult if AC power is not restored. In general, plants assume that additional help will be made available if they experience an extended SBO event. It may make sense to evaluate the capability of plants to cope with extended station blackouts, especially if they could occur in conjunction with the most risk significant external events for that site.

- Regarding beyond design basis seismic events, I believe that the safety-related structures and components are designed with significant margin and are likely to survive events in excess of their design basis. This opinion is based on the margin inherent in the design codes and the simplifying (conservative) assumptions that are normally part of the design process. However, I have less faith in the non-safety related structures and components that were subject to a less rigorous design process, including those components that were evaluated by inspection (i.e., SQUG). In some plants, safety related cooling water systems (service water) are fully qualified on the supply side but are discharged through non-safety related, non-seismic piping systems. Apparently, these designs were based on the assumption that the non-seismic piping systems would not fail in such a way that the flow would be restricted. For example, one plant has a common discharge header from the emergency diesel generators that was routed through the entire length of the lower level of the turbine building before discharging back to the reservoir; this design is consistent with their current licensing basis. Restriction of that single pipe would, at least temporarily, result in the loss of both diesel generators. More recent designs typically included a fully safety-related discharge path for these systems. It might make sense to look at these types of "single point vulnerabilities" in locations with a significant seismic hazard.

- Plants are typically designed for a specific external flooding event without any design provisions to address a flood that exceeds that design event (i.e., openings below the flood level are fully protected while those above the level may be completely unprotected). As a result, a plant may have significant consequences if the design flood is exceeded by even a small amount. Also, there are not really specific testing requirements for flood barriers (i.e., valves in building drain systems, door seals, etc). The obvious risk is that the failure of a single barrier could have very significant consequences. Regarding floods, it may make sense to reverify the existing design limits and to verify the the design barriers are actually in place and functional (these barriers tend to have very low visibility to the plants).

- The design requirements for tornado/wind events seems to have evolved significantly between the earliest and latest US plants. This is most obvious where two similar units have significantly different design criteria. Some earlier plants did not address the affect of depressurization on structures, components, HVAC systems, etc. Some did not consider any vertical tornado missiles. Some do not have missile barriers on building openings containing vital equipment, etc. Given the variation in tornado risk in different areas, some of the newer plants may be "over-designed" but it may make sense to review the criteria used for older plants in high risk areas.

- Regarding spent fuel pools, it appears that the industry has paid very little attention to them (aside from security issues) based on the logic that there is plenty of time to refill them if cooling is lost. That logic still seems reasonable, but the Fukushima Daiichi event has demonstrated that the capability to refill the pools can be lost in severe events. Based on that reality, it might make sense to verify that every plant has the capability of refilling spent fuel pools; even if the area becomes inaccessible to the operators.

Again, these are just my observations/ opinions based on very limited information, feel free to pass them along, or not.

Covert, Nicole

From: NEI SmartBrief [nei@smartbrief.com]
Sent: Tuesday, March 29, 2011 10:35 AM
To: Covert, Nicole
Subject: March 29, 2011 - TEPCO: Fukushima Daiichi soil is contaminated with plutonium

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News Roundup

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TEPCO: Fukushima Daiichi soil is contaminated with plutonium

Plutonium discovered in the soil surrounding the Fukushima Daiichi nuclear plant is at levels too low to affect human health, according to Tokyo Electric Power. The finding supports the theory that radioactive water is seeping from damaged fuel rods at the facility, safety officials said.

"The situation is very grave," Chief Cabinet Secretary Yukio Edano said. [Reuters](#) (3/28), [Google/The Associated Press](#) (3/28) Share: [E-MAIL](#) [RELATED STORIES](#)

Radiation expert works to calm fears about Japan crisis

Since the beginning of the crisis in Japan, David Brenner, who directs the Center for Radiological Research at Columbia University, has been combating radiation fears with facts through media interviews. Radioactive iodine has been detected in drinking water near the plant, women and children can avoid exposure by not drinking the water until the threat has passed. Brenner has directed the development of a machine designed to test blood samples in the event of an attack; samples from Japan are lower than what the machine is designed to test. [The New York Times](#) (tiered subscription model) (3/26) Share: [E-MAIL](#)




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NEI: U.S. must be prepared to handle a major nuclear disaster




The U.S. must be prepared to handle a catastrophic nuclear accident, said Anthony R. Pietrangelo, senior vice president and chief nuclear officer at the Nuclear Energy Institute. "It doesn't matter how you get there, whether it's a hurricane, whether it's a tsunami, whether it's a seismic event, whether it's a terrorist attack, whether it's a cyberattack, whether it's operator error, or some other failure in the plant -- it doesn't matter," he said. [The New York Times](#) (tiered subscription model) (3/28) Share: [E-MAIL](#) [RELATED STORIES](#)

Jaczko, Japanese officials discuss nuclear crisis

Nuclear Regulatory Commission Chairman Gregory Jaczko met with senior Japanese government officials in Tokyo to tackle stabilization efforts at the damaged Fukushima Daiichi nuclear plant. "Our nuclear experts are working closely with their Japanese counterparts, and we both continue to share expert analysis as we move forward to address this challenge," Jaczko said. The NRC deployed staff to support Japan's efforts at the facility. [Reuters](#) (3/28)




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NEI seeks clarity in reporting requirements for equipment flaws

Reporting requirements for defective components at nuclear plants should be clarified, said Tom Kauffmann, a spokesman for the Nuclear Energy Institute. He said it does not have "an adverse impact on safety," but an overlap in codes is causing the confusion. This follows a report from the Nuclear Regulatory Commission's Office of Inspector General that found several nuclear plants failed to declare equipment flaws. [Brattleboro Reformer \(Vt.\)](#) (3/28) Share:    [E-MAIL](#)

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Official: Indian Point plant violates fire-safety policies

Entergy has requested more than 100 fire code exemptions for its Indian Point nuclear plant to make it harder to close down, New York state Attorney General Eric Schneiderman said. Plant spokesman Jerry Nappi said the number of exemptions is about one-third of that, adding that Entergy has installed additional safety protocols to address the concerns. "I don't believe there's ever been a fire that affected safety systems," he added. [Reuters](#) (3/28) Share:    [E-MAIL](#)

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
Policy Watch

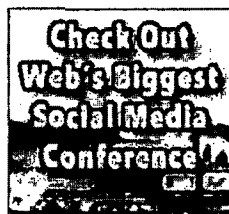
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Iowa lawmakers continue hearings on nuclear plant bill

Supporters and critics of a bill that would pave the way for the construction of a nuclear facility in Iowa spoke Monday as the state's lawmakers address the measure. "It would behoove the rate payers to pay a little more now to get baseload generation built so they can pay less in the future," said Darrel Wenzel of Independence Light & Power. "All we're saying is let's keep an open mind. Shouldn't we do that?" said Jim Krieg, general manager of Cedar Falls Utilities.

[KCCI-TV \(Des Moines, Iowa\)](#) (3/28) Share:    [E-MAIL](#) [RELATED STORIES](#)



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4 ways to lead like Cleopatra

Put away the asps: To lead like Cleopatra, you'll need to learn to enchant those around you, to be utterly ruthless with your foes, and to be a polymath capable of working a room,

commanding an army or wrestling with political strategy. The Egyptian queen was a masterful marketer, capable of wowing allies and cowing rivals with lavish parties and ostentatious displays of power, notes Sean Silverthorne. "It doesn't hurt to be the smartest person in the room, as well as the most beautiful and most compelling," he adds. [BNET/The View from Harvard Business blog](#) (3/25) Share: [D](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

10 ways to spot a deadbeat worker

Deadbeat employees can quickly bring down the morale, productivity and overall well being of your business, writes Charlie Judy. Among the ways to spot the ones roaming your halls: They don't show up at company events, they ignore their fellow workers' long-term goals and they tend to frame things in terms of "the" company rather than "our" company. [HRFishbowl.com](#) (3/24) Share: [D](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

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International

TEPCO requests assistance from French firms with reactor crisis

Tokyo Electric Power is seeking assistance from French power companies in addressing the crisis at the Fukushima Daiichi nuclear plant, French Energy Minister Eric Besson said. "TEPCO is in difficulty. When there is more information, we will know more on what has happened these last eight days," Besson said. [Platts](#) (3/28) Share: [D](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

Finnish reactor is equipped to withstand disasters

The nuclear crisis unfolding in Japan is considered unlikely to occur in Finland, where engineers are developing a 1,600-megawatt European Pressurized Reactor that is slated for a 2013 startup. The EPR unit has walls solid enough to withstand a plane crash and components that can handle extreme winter conditions. "[We have] so many backup systems that the kind of accident like in Japan could not happen," said Jouni Silvennoinen, the Finnish site's project manager. [Google/The Associated Press](#) (3/28) Share: [D](#) [f](#) [c](#) [E-MAIL](#) [RELATED STORIES](#)

SmartQuote



When a man points a finger at someone else, he should remember that four of his fingers are pointing at himself."

--Louis Nizer,
American lawyer

☐ E-Mail this quote

This SmartBrief was created for **Nicole.Coover@nrc.gov**

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Morris, Eddie

From: Morris, Eddie
Sent: Tuesday, March 29, 2011 12:13 PM
To: Kuzo, George; Bonser, Brian
Cc: Shaeffer, Scott; Hardage, David
Subject: Hatch FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Importance: High

Hatch REMP sample contained trace amounts of I-131 reported to Residents on 3/29/11.

Corporate SNC provided a courtesy call to the Hatch residents office today notifying us that they have identified small amounts of I-131 (20 femtocuries/cubic meter) in their latest REMP sample which is statistically significant but still below the established MDC. SNC said the only other times trace amounts of I-131 were detected in REMP samples were during Chernobyl (80's) and nuclear weapons testing (70's).

SNC is providing Hatch data to NEI and will inform the residents if any data is collected that may impact the licensee's own REMP.

Eddie D. Morris
NRC Senior Resident Inspector - Hatch
912-367-9881

From: Croteau, Rick
Sent: Monday, March 28, 2011 11:09 AM
To: R2DRP_ALL
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Please include George Kuzo on the emails also.
Thanks,
Rick

From: Croteau, Rick
Sent: Monday, March 28, 2011 9:07 AM
To: R2DRP_ALL
Cc: Bonser, Brian; Munday, Joel
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

A couple of corrections. For item 2, email Brian Bonser rather than Pam Henderson and there is no need to cc the HOO.

From: Croteau, Rick
Sent: Monday, March 28, 2011 7:26 AM
To: R2DRP_ALL
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Please observe the following guidance:

- 1) If licensees voluntarily provide REMP sample results (particularly indicating I-131 or other elevated isotopes believed to be tied to the Japanese events) to the resident inspectors, then the residents should inquire as to whether the licensee has provided the same info through its formal NEI channel, per the arrangement reached between the agency and NEI. If not, then the licensee should be requested to do so.
- 2) As a courtesy, residents should notify the region by email (their BC and Pam Henderson) and cc the HOO, confirming that the licensee has informed NEI.
- 3) Residents should request that the licensee provide future such sample results directly to NEI, and that they only inform the resident inspectors for awareness and to keep the residents updated on any information that may implicate the licensee's own REMP for the site involved.
- 4) Obviously, any radiological information that may pose a threat to health and safety of the residents or plant workers should be communicated to the residents.
- 5) Reporting requirements or arrangements for normal REMP activities should not be affected or altered by this direction.

Thanks,
Rick

From: Munday, Joel
Sent: Friday, March 25, 2011 6:33 PM
To: Croteau, Rick; Jones, William
Subject: Fw: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

See below

This email is being sent from an NRC Blackberry device.

From: Bonser, Brian
To: Munday, Joel; Christensen, Harold
Sent: Fri Mar 25 17:25:20 2011
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Joel,

Looks like HQ likes the path Region I has proposed. I recommend DRP give this guidance to their resident inspectors.

Brian R. Bonser

Chief, Plant Support Branch 1
Division of Reactor Safety, Region II
U.S. Nuclear Regulatory Commission
404-997-4653

From: Shoop, Undine
Sent: Friday, March 25, 2011 5:03 PM
To: Bonser, Brian
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Brian,

This is what RI is proposing with the only change being that the HOO does not want to receive the information, they will wait for NEI to provide a final.

Hope this helps!
Undine

From: Brown, Frederick
Sent: Friday, March 25, 2011 4:23 PM
To: Roberts, Darrell
Cc: Westreich, Barry; Cheek, Michael; Christensen, Harold; Croteau, Rick; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter; Shoop, Undine; Morris, Scott; Evans, Michele; Holahan, Patricia; McDermott, Brian; Meighan, Sean
Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data
Importance: High

Darrell,

Outstanding! I'll defer to Scott Morris (I've added him to distribution) on whether the HOOs want a courtesy copy of the e-mail or not (I suspect not).

Fred

From: Roberts, Darrell
Sent: Friday, March 25, 2011 2:17 PM
To: Brown, Frederick; Shoop, Undine
Cc: Westreich, Barry; Cheek, Michael; Christensen, Harold; Croteau, Rick; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter
Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Fred,

Given all of the below and other e-mails on the subject, I've proposed the following advice be provided to our residents here in RI:

- 6) If licensees voluntarily provide REMP sample results (particularly indicating I-131 or other elevated isotopes believed to be tied to the Japanese events) to the resident inspectors, then the residents should inquire as to whether the licensee has provided the same info through its formal NEI channel, per the arrangement reached between the agency and NEI. If not, then the licensee should be requested to do so.
- 7) As a courtesy, residents should notify the region by email (their BC and Pam Henderson) and cc the HOO, confirming that the licensee has informed NEI.
- 8) Residents should request that the licensee provide future such sample results directly to NEI, and that they only inform the resident inspectors for awareness and to keep the residents updated on any information that may implicate the licensee's own REMP for the site involved.
- 9) Obviously, any radiological information that may pose a threat to health and safety of the residents or plant workers should be communicated to the residents.
- 10) Reporting requirements or arrangements for normal REMP activities should not be affected or altered by this direction.

DJR

From: Brown, Frederick
Sent: Friday, March 25, 2011 12:42 PM
To: Shoop, Undine

Cc: Westreich, Barry; Cheok, Michael; Christensen, Harold; Croteau, Rick; Roberts, Darrell; Clifford, James; Jones, William; Kennedy, Kriss; Miller, Chris; Moorman, James; Munday, Joel; OBrien, Kenneth; Reynolds, Steven; Shear, Gary; Pruett, Troy; Vogel, Anton; West, Steven; Wilson, Peter
Subject: FW: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

FYI – a minor change, consistent with what some of you had heard.

From: Evans, Michele
Sent: Friday, March 25, 2011 12:40 PM
To: Weber, Michael; Leeds, Eric; Holahan, Patricia
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Wiggins, Jim; Ruland, William; Brown, Frederick; Dyer, Jim; PMT01 Hoc; LIA06 Hoc; LIA08 Hoc; ET01 Hoc; ET05 Hoc; OST02 HOC; Zimmerman, Roy
Subject: RE: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Mike,

We've been working this and gave the ok to send the information to the HOO. Goal is to task items to the line organization since unclear how long PMT function will be stood up.

Thanks
Michele

From: Weber, Michael
Sent: Friday, March 25, 2011 11:52 AM
To: Leeds, Eric; Holahan, Patricia; Evans, Michele
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Wiggins, Jim; Ruland, William; Brown, Frederick; Dyer, Jim; PMT01 Hoc; LIA06 Hoc; LIA08 Hoc; ET01 Hoc; ET05 Hoc; OST02 HOC; Zimmerman, Roy
Subject: Response - Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Send it to PMT01 HOC.

Thanks, Eric. Looks like we ended up at the right place!

From: Leeds, Eric
To: Holahan, Patricia; Evans, Michele
Cc: Meighan, Sean; Quay, Theodore; Virgilio, Martin; Weber, Michael; Wiggins, Jim; Ruland, William; Brown, Frederick
Sent: Fri Mar 25 10:51:17 2011
Subject: Heads up!: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Please see below. I've discussed with Borchardt and NEI. We plan to be the broker of information from the industry through NEI to the federal family. We do NOT want folks from EPA or DOE or anywhere else going directly to NEI. We have an established relationship and it's in our best interest to broker the info. NEI does NOT want to deal with all the other feds – they are happy to leave it to us. We are not planning on issuing a generic communication on the subject.

Please let my TA – Sean Meighan, know who NEI should interface with to feed the info into the Ops Center and please help coordinate that info to our colleagues in EPA and DOE.

Thank you!

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: MARION, Alex [mailto:axm@nei.org]
Sent: Friday, March 25, 2011 9:55 AM
To: Leeds, Eric
Subject: FW: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

From: ANDERSEN, Ralph
Sent: Friday, March 25, 2011 9:53 AM
To: MARION, Alex
Subject: RE: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Ray Clark.

From: MARION, Alex
Sent: Friday, March 25, 2011 9:52 AM
To: ANDERSEN, Ralph
Subject: RE: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

Who was the EPA contact?

From: ANDERSEN, Ralph
Sent: Friday, March 25, 2011 9:34 AM
To: MARION, Alex
Cc: PIETRANGELO, Tony; ANDERSON, Ellen
Subject: Request by USEPA for Nuclear Power Plant Environmental Monitoring Data

We were contacted yesterday afternoon by the USEPA Emergency Operations Center Environmental Unit to see if we would be able to provide environmental monitoring data from the U.S. nuclear power plants reflecting possible releases from the Fukushima plant.

In our follow up discussion with the EPA staff this morning, they indicated that they had been tasked by the Office of Science and Technology Policy (OSTP) to compile and trend available U.S. environmental monitoring information and provide the results to the OSTP.

We will proceed with implementing a process for collecting the information on a standardized and routine basis for to the NRC, USEPA or others.

Ralph L. Andersen, CHP
Senior Director, Radiation Safety & Environmental Protection

Nuclear Energy Institute
1776 I St. N.W., Suite 400
Washington, DC 20006
www.nei.org

Phone: 202-739-8111

Fax: 202-533-0101

Mobile: (b)(6)

Email: ra@nei.org

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Oelstrom, Chad

From: Oelstrom, Chad
Sent: Tuesday, March 29, 2011 3:52 PM
To: Alexander, Sarah; Cozens, Ian; Davis, Bradley; Heher, Elaine; Jackson, Rahsean; Lizardi, Jonathan; Masters, Anthony; Oelstrom, Chad; Ponko, Anthony; Seat, Jamin; Smith, Clint; Smith, Steven; Vasquez, Jose
Subject: Fukushima Photos

FYI - Below is a link to some interesting photos of the plant and the working conditions.

<http://www.time.com/time/photogallery/0,29307,2058823,00.html?hpt=T1>

Chad Oelstrom
Construction Inspector
USNRC Region II, CCI-DCI-CIB2
Phone: 404-997-4493
Fax: 404-997-4917
Email: Chad.Oelstrom@nrc.gov

Heisserer, Jamie

From: Masters, Anthony
Sent: Wednesday, March 30, 2011 7:08 AM
To: R2DCI
Subject: FW: NPJ E-News March 29, 2011 Fukushima Update

Check out the spreadsheet in pdf format on the link in the e-mail below (Section: **JAIF Status Update**) for a good quick view of the status.

Anthony D. Masters, PE
Senior Construction Inspector
Division of Construction Inspections
U.S. Nuclear Regulatory Commission
Region II - Atlanta
(404) 997 - 4465 (office phone)
(404) 997 - 4917 (fax)
Anthony.Masters@nrc.gov

From: Nuclear Plant Journal [<mailto:anu@goinfo.com>]
Sent: Tuesday, March 29, 2011 5:08 PM
To: Masters, Anthony
Subject: NPJ E-News March 29, 2011 Fukushima Update

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Nuclear Plant Journal E-News

Japan Update
March 29, 2011

Dear ANTHONY,

In this issue of NPJ E-News you'll find an update of the Fukushima Nuclear Plants in Japan. Information is current as of March 29, 2011, 15:00 CDT. All items are directly quoted, without any editing.

In this issue

[TEPCO Update](#)

[Status Document](#)

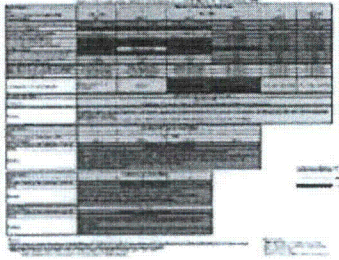
[US NRC FAQs](#)

TEPCO Update

From the [TEPCO website](#):

- From 2:17pm to 6:18pm, March 29th, water was injected into Unit 3 from a concrete pumping vehicle. Until March 28th, we had been injecting sea water, however, from March 29th, we started injecting fresh water.
- At Unit 2, seawater had been injected from the fire fighting pump, but at 4:30pm, March 29th, we started injecting fresh water from a temporary motor driven pump instead. The water was injected until 6:25pm, March 29th.

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JAIF Status Update

Update 46, March 29, 2011

A [PDF document](#) provides a simple summary of each of the units at Fukushima nuclear power plants. This is a multi-page document that also provides a chronology of events and a map that details the status of each of the Japanese nuclear units.

Earthquake Update 36.

US NRC FAQs related to Fukushima earthquake and subsequent events



NRC [frequently asked questions](#) related to the March 11, 2011 Japanese Earthquake and Tsunami. Some sample questions:

- Can an earthquake and tsunami as large as happened in Japan also happen here?
- Did the Japanese underestimate the size of the maximum credible earthquake and tsunami that could affect the plants?
- How high was the tsunami at the Fukushima nuclear plants?
- Was the damage to the Japanese nuclear plants mostly from the earthquake or the tsunami?

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Crowe, Eddy

From: Farley [R2Farley@nrc.gov]
Sent: Wednesday, March 30, 2011 8:35 AM
To: Crowe, Eddy; Sowa, Jeffrey; Shaeffer, Scott; Rose, Steven; Lightly, Tonya; Hannah, Roger
Subject: Dothan Eagle Front Page Articles Yesterday
Attachments: Document.pdf

Please open the attached document. This document was digitally sent to you using an HP Digital Sending device.

Dothan Eagle
03/29/2011

NRC to discuss safety of Farley plant

From staff reports

The U.S. Nuclear Regulatory Commission staff has scheduled a meeting for Thursday with representatives of Southern Nuclear Operating Co. to discuss the agency's assessment of safety performance during 2010 at the Farley nuclear power plant. The plant, operated by Southern Nuclear, is 18 miles southeast of Dothan in south Alabama.

The meeting, which will be open to the public, is scheduled to begin with an open house and poster session at 3 p.m., followed by a brief presentation. The meeting will be held at the Dothan Area Chamber of Commerce, 102 Jamestown Blvd., in Dothan.

Before and after the presentation, NRC staff will be available to answer questions on the safety performance of the Farley plant, as well as the NRC role in ensuring safe plant operation.

See **SAFETY**, Page 3A

Safety

From Page 1A

Overall, the NRC staff concluded that the Farley plant operated safely in 2010 and will receive normal baseline oversight and inspection efforts. Unit 1 remains in the Regulatory Response Column based on a performance indicator that crossed the threshold from green to white. That was due to failures of one emergency diesel generator. The NRC staff has completed a supplemental inspection on the issues that led to the white performance indicator. Unit 2 is in the Licensee Response column requiring no additional oversight or inspections.

"The NRC evaluates nuclear power plants in a systematic and detailed way each year," said NRC Region II Administrator Victor McCree. "The inspections and oversight at Farley ensure that the plant is operated in a way that protects people near the plant and the environment."

The NRC uses color-coded inspection findings and performance indicators to assess plant performance. The colors start with "green," which has very low safety significance, to "white," "yellow" and "red," based on increasing significance of the issues. Inspection findings and performance indicators are updated on the NRC's website (www.nrc.gov) each quarter.

Nuclear plant downplayed

The Associated Press

TOKYO — In planning their defense against a killer tsunami, the people running Japan's now-hobbled nuclear power plant dismissed important scientific evidence and all but disregarded 3,000 years of geological history, an Associated Press investiga-

tion shows.

The misplaced confidence displayed by Tokyo Electric Power Co. was prompted by a series of overly optimistic assumptions that concluded the Earth couldn't possibly release the level of fury it did two weeks ago, pushing the six-reactor Fukushima Dai-ichi complex to the

brink of multiple meltdowns.

Instead of the reactors staying dry, as contemplated under the power company's worst-case scenario, the plant was overrun by a torrent of water much higher and stronger than the utility argued could occur, according to an AP analysis of records, documents and statements from

03/29/2011

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tsunami risk

Risk

From Page 1A

They declined to provide more detailed explanations, saying they were focused on the ongoing nuclear crisis.

What is clear: TEPCO officials discounted important readings from a network of GPS units that showed that the two tectonic plates that create the fault were strongly "coupled," or stuck together, thus storing up extra stress along a line hundreds of miles long. The greater the distance and stickiness of such coupling, experts say, the higher the stress buildup — pressure that can be violently released in an earthquake.

That evidence, published in scientific journals starting a decade ago, represented the kind of telltale characteristics of a fault being able to produce the truly overwhelming quake — and therefore tsunami — that it did.

On top of that, TEPCO modeled the worst-case tsunami using its own computer program instead of an internationally accepted prediction method.

researchers, the utility and the Japan's national nuclear safety agency.

And while TEPCO and government officials have said no one could have anticipated such a massive tsunami, there is ample evidence that such waves have struck the northeast coast of Japan before — and that it

could happen again along the culprit fault line, which runs roughly north to south, offshore, about 220 miles east of the plant.

TEPCO officials say they had a good system for projecting tsunamis.

See RISK, Page 3A

It matters how Japanese calculate risk. In short, they rely heavily on what has happened to figure out what might happen, even if the probability is extremely low. If the view of what has happened isn't accurate, the risk assessment can be faulty.

That approach led to TEPCO's disregard of much of Japan's tsunami history.

In postulating the maximum-sized earthquake and tsunami that the Fukushima Dai-ichi complex might face, TEPCO's engineers decided not to factor in quakes earlier than 1896. That meant the experts excluded a major quake that occurred more than 1,000 years ago — a tremor followed by a powerful tsunami that hit many of the same locations as the recent disaster.

A TEPCO reassessment presented only four months ago concluded that tsunami-driven water would push no higher than 18 feet once it hit the shore at the Fukushima Dai-ichi complex. The reactors sit up a small bluff, between 14 and 23 feet above TEPCO's projected high-water mark, according to a presentation at a November seismic safety conference in Japan by TEPCO civil engineer Makoto Takao.

"We assessed and confirmed the safety of the nuclear plants," Takao asserted.

However, the wall of water that thundered ashore two weeks ago reached about 27 feet above TEPCO's prediction. The flooding disabled backup power generators, located in basements or on first floors, imperiling the nuclear reactors and their nearby spent fuel pools.

◆◆◆

The story leading up to the Tsunami of 2011 goes back many, many years — several millennia, in fact.

The Jogan tsunami of 869 displayed striking similarities to the events in and around the Fukushima Dai-ichi reactors. The importance of that disaster, experts told the AP, is that the most accurate planning for worst-case scenarios is to study the largest events over the longest period of time. In other words, use the most data possible.

The evidence shows that plant operators should have known of the dangers — or, if they did know, disregarded them.

As early as 2001, a group of scientists published a paper documenting the Jogan tsunami. They estimated waves of nearly 26 feet at Soma, about 25 miles north of the plant. North of there, they concluded that a surge from the sea swept sand more than 2 1/2 miles inland

across the Sendai plain. The latest tsunami pushed water at least about 1 1/2 miles inland.

The scientists also found two additional layers of sand and concluded that two additional "gigantic tsunamis" had hit the region during the past 3,000 years, both presumably comparable to Jogan. Carbon dating couldn't pinpoint exactly when the other two hit, but the study's authors put the range of those layers of sand at between 140 B.C. and A.D. 150, and between 670 B.C. and 910 B.C.

In a 2007 paper published in the peer-reviewed journal *Pure and Applied Geophysics*, two TEPCO employees and three outside researchers explained their approach to assessing the tsunami threat to Japan's nuclear reactors, all 54 of which sit near the sea or ocean.

To ensure the safety of Japan's coastal power plants, they recommended that facilities be designed to withstand the highest tsunami "at the site among all historical and possible future tsunamis that can be estimated," based on local seismic characteristics.

But the authors went on to write that tsunami records before 1896 could be less reliable because of "misreading, misrecording and the low technology available for the measurement itself." The TEPCO employees and their colleagues concluded, "Records that appear unreliable should be excluded."

Two years later, in 2009, another set of researchers concluded that the Jogan tsunami had reached 1 mile inland at Namie, about 6 miles north of the Fukushima Dai-ichi plant.

The warning from the 2001 report about the 3,000-year history would prove to be most telling: "The recurrence interval for a large-scale tsunami is 800 to 1,100 years. More than 1,100 years have passed since the Jogan tsunami, and, given the recurrence interval, the possibility of a large tsunami striking the Sendai plain is high."

◆◆◆

The fault involved in the Fukushima Dai-ichi tsunami is part of what is known as a subduction zone. In subduction zones, one tectonic plate dives under another. When the fault ruptures, the sea floor snaps upward, pushing up the water above it and potentially creating a tsunami. Subduction zones are common around Japan and throughout the Pacific Ocean region.

TEPCO's latest calculations were started after a magnitude-8.8 subduction zone earthquake off the coast of Chile in February 2010.

In such zones over the past 50 years, earthquakes of magnitude 9.0 or greater have occurred in Alaska, Chile and Indonesia. All produced large tsunamis.

When two plates are locked across a large area of a subduction zone, the potential for a giant earthquake increases. And those are the exact characteristics of where the most recent quake occurred.

TEPCO "absolutely should have known better," said Dr. Costas Synolakis, a leading American expert on tsunami modeling and an engineering professor at the University of Southern California. "Common sense," he said, should have produced a larger predicted maximum water level at the plant.

TEPCO's tsunami modelers did not judge that, in a worst-case scenario, the strong subduction and coupling conditions present off the coast of Fukushima Dai-ichi could produce the 9.0-magnitude earthquake that occurred. Instead, it figured the maximum at 8.6 magnitude, meaning the March 11 quake was four times as powerful as the presumed maximum.

Vias, Steven

From: Karen Brackett, (b)(6)
Sent: Wednesday, March 30, 2011 9:06 PM
To: Vias, Steven
Subject: Sticky Note

In general, using a synthetic resin is a bad idea. Especially do not use phenol-formaldehyde unless you want to give cancer to every single citizen of Japan. I understand the desire to try to cap these structures... Personally, I believe the window for that has long past... However, if you are really set on trying it... and want something to keep the dust down... use honey mixed in Saki to keep surfaces wet... This will avoid getting radiation stuck to surfaces you want to protect such as your skin and equipment and it will not future poison the ground and water. In addition, it will help cleanse the area a little of microbes which would be a good thing. In 2007, bacteria has been found grounding in Chernobyl... this is a serious world problem... because we do not need our bacterias and viruses mutating and becoming resistant to our antibiotics. Naturally, you will need to use precaution since Saki is a alcohol an flammable. In areas where this is a severe problem due to high temperature use mixtures of honey and citric acid... household vinegar.

Karen Sherry Brackett

Vias, Steven

From: Karen Brackett (b)(6)
Sent: Wednesday, March 30, 2011 9:38 PM
To: Vias, Steven
Subject: Just Found This on CNN

This is scary... What is it about men and bombs? I remembered we were shocked after PaPaw died and found an old shell bomb from a tank looked like something maybe from WWI or WWII in their basement... just setting there as innocently as his other toolboxes. Plus, I used to go and clean their house for them every week after school starting in the sixth grade... and I of course was always very careful dusting his gun rack and knew to never take one down. After he died... my uncles and Dad divided them up... and when Uncle Phil lifted one off the rack... It shot a whole in the wall. All of those years... I was dusting loaded guns. Good thing I was a good kid and always minded... and Dad had taught us to shoot early too. So, I knew anyway to be careful... but guys building a nuclear bomb in their barn.... That takes the cake!

<http://www.cnn.com/2011/TECH/innovation/03/30/vbs.atomic.trucker/index.html?hpt=C2>

Heisserer, Jamie

From: Harmon, David
Sent: Wednesday, March 30, 2011 9:25 AM
To: R2DCI_B3
Subject: Japan aerial photos

<http://portal.nrc.gov/edo/nrr/dirs/ioeb/Shared%20Documents/Comm%20Linked%20Documents/Japan%20-%20Tohoku-Taiheiyou-Oki%20Earthquake%20and%20Tsunami/Fukushima%20Dai%27ichi%20Pictures.pdf>

high resolution aerial photos of the 4 units

Thanks,



Dave Harmon; 404-997-4447
Construction Inspector, Welding
USNRC -- Region II,
Division of Construction Inspection, Branch 3

Wert, Leonard

From: McCree, Victor
Sent: Wednesday, March 30, 2011 4:42 PM
To: R2SR_MANAGERS
Subject: FW: Third NRC Team to Japan
Attachments: 3rd Staff Deployment to Japan Final.docx

See below, FYI.

From: Evans, Michele
Sent: Wednesday, March 30, 2011 4:29 PM
To: Call, Michel; Salay, Michael; Hay, Michael; Bernhard, Rudolph; LIA03 Hoc; LIA02 Hoc
Cc: Doane, Margaret; Mamish, Nader; Lee, Richard; Case, Michael; Sheron, Brian; Haney, Catherine; Ordaz, Vonna; McCree, Victor; Kennedy, Kriss; Casto, Chuck; Monninger, John; Virgilio, Martin; Weber, Michael; Borchardt, Bill; Bahadur, Sher; Ruland, William; Leeds, Eric; Johnson, Michael; Holahan, Gary; Pederson, Cynthia; Camper, Larry; Wiggins, Jim; Dorman, Dan; Collins, Elmo
Subject: Third NRC Team to Japan

Thank you for volunteering for deployment to Japan. This work is of highest priority for the agency and your efforts are enormously appreciated.

At this time we've identified 4 additional technical staff to support the team in Japan. **The plan is for Mike Salay (RES), Michel Call (NMSS), Mike Hay (RIV), and Rudy Bernhard (RIL) to leave the USA on Saturday, April 2.** The intent is that your stay will be two weeks or less.

An additional staff member with International Programs expertise will be identified by OIP to support and provide relief in the near term.

The Operations Center Liaison Team (LT) will be contacting you later today to handle the logistic for your trip. This includes items such as flights, passports, country clearances, health immunizations, international blackberry service, dosimetry and KI tablets.

In addition, HR has requested that I provide you the information below:

-Please contact NRC Health Services at your earliest convenience on 301-415-8400 to schedule an appointment with Dr. Cadoux for health screening and counseling. If at all possible, it is important that you meet with Dr. Cadoux face-to-face. However, if you are located in the Region or if you are notified and deployed in a very short time frame so that medical screening is not possible, this screening will be conducted by phone. Please be aware that medical services available in Tokyo are limited at this time. Additionally, working conditions are such that controlling diet, sleep, exercise, and routine may be impossible. All of these factors can impact your health. Please review any medical conditions that you may have with Dr. Cadoux so that he can provide you with advice and counseling on managing your medical condition while deployed.

-Before you deploy we recommend that you speak briefly with the NRC Employee Assistance Program counselor, Sarah Linnerooth. Sarah can be reached on 301-415-7113. While you are deployed, EAP services are available to both you and your family, including extended family members such as Grandparents. The telephone number for EAP service is 1-800-896-0276. More information is available on the EAP on the web at www.eapconsultants.com. To learn more about the EAP and the services provided click on the member services tab. The NRC passcode is "nuclear". Please be sure to share this information with your family.

At this point, I ask that you hold any questions that you may have until the LT contacts you directly. However, after that time, if you have any additional questions or concerns that have not been addressed, please call or email me.

Thank you.

Michele Evans

Acting Deputy OD, NSIR

Michele.evans@nrc.gov

BB: (b)(6)

Hartland, David

From: Corrado, Jonathan K [ccorradok@usec.com]
Sent: Thursday, March 31, 2011 9:30 AM
To: Hartland, David
Cc: LaFave, Aerik R; Coriell, Kelly L; Sensue, Terry
Subject: [Secure] RE: response to Japanese earthquake
Attachments: securedoc.html

You have received a secure message

Read your secure message by opening the attachment, securedoc.html. You will be prompted to open (view) the file or save (download) it to your computer. For best results, save the file first, then open it in a Web browser. To access from a mobile device, forward this message to mobile@res.cisco.com to receive a mobile login URL.

If you have concerns about the validity of this message, contact the sender directly.

First time users - will need to register after opening the attachment.

Help - <https://res.cisco.com/websafe/help?topic=RegEnvelope>

About Cisco Registered Email Service - <https://res.cisco.com/websafe/about>

NRC RII Request for Beyond Design Basis Events

Lead Cascade

The Lead Cascade licensed material inventory is less than 250 kg of uranium hexafluoride, so most consequence outcomes cannot reach any levels of concern because the material is typically in a gaseous or solid state and the inventory available for release is low. Qualitative considerations for beyond design basis events have been addressed in the Integrated Safety Analysis (ISA) with the expected outcomes to be of low consequence for radiological concerns, but for chemical concerns the consequences vary from low to high.

For beyond design basis seismic events it is expected the consequences would be low for events of a lesser degree of severity. Due to the safety margins in the design and installation of the structures, systems and components (SSCs), they would be expected to remain intact. For those seismic events of greater intensities it is expected the SSCs would fail, but because the process equipment is typically at a high vacuum the potential for release of license material is minimal. Should fires result, releases could be driven offsite, but the associated lofting would help dilute the releases and minimize their potential adverse effects.

For high wind and tornadic events the Lead Cascade has design basis levels similar to the seismic events. Should the degree of severity of the events be within the safety margins of the SSCs, the resulting damage to the SSCs would be minimal. For high wind and tornadic events of greater intensities it is expected the SSCs would fail, but because the process equipment is typically at a high vacuum the potential for release of license material is minimal. Also, the turbulent high winds would be expected to ensure a high degree of dilution and dispersion.

For flooding events the Piketon site is more than 90 feet above the 500 year flood plain associated with the Scioto River which is more than one mile to the west of the reservation. The configuration of the Lead Cascade is well beyond the design basis for a flooding event so no further consideration is necessary.

Other natural phenomena considered for the Lead Cascade are heavy rains, lightning strikes, and snow and ice accumulation. No significant consequences are expected with these events because no licensed material releases are anticipated.

Information Contained Within
DOES NOT CONTAIN
Export Controlled Information
Reviewer (Signature) RSY/koml
Date 3-31-11

This document has been reviewed and is UNCLASSIFIED
and NOT UCN. This review does not constitute clearance
for public release.

RSY/koml, AT Eng DC#4089 3-31-11
Authorized Derivative Classifier Date

Overall, if a beyond basis event did occur, depending upon the level of exceedance, it is expected that the integrity of most Lead Cascade facilities would be maintained if the forces are within the safety margins of the SSCs. Should any SSCs fail the expected failed state of the equipment is a safe state. Workers are trained to respond to abnormal conditions and those conditions expected with natural phenomena events could be evacuation or shelter in place. Emergency procedures are in place and emergency responders are trained to respond as necessary allowing for a dynamic or graded approach in dealing with the circumstances at hand.

American Centrifuge Plant (ACP)

The ACP has no licensed material currently associated with it because it is still in the design phase and has not operated; therefore, there are currently no concerns for design basis events and beyond. Looking forward to actual ACP operations, the ISA did consider various natural phenomena events similar to the Lead Cascade.

The ACP licensed material inventory is substantial, plus there will be operations occurring that require handling licensed material in the liquid state. At full capacity the inventory at the site will exceed 500 tons of licensed material. Qualitative considerations for beyond design basis events have been addressed in the ISA with the expected outcomes varying from low to high consequence for radiological and chemical concerns.

For beyond design basis seismic events it is expected the consequences would be low for events of a lesser degree of severity due to the safety margins in the design and installation of the SSCs. It is expected that they would remain intact. For those seismic events of greater intensities, it is expected the SSCs would fail, but because the process equipment is typically at a high vacuum or provides containment capability, the potential for release of license material is minimal. Should fires result, releases could be driven offsite, but the associated lofting would help dilute the releases and minimize their potential adverse effects.

For high wind and tornadic events the ACP has design basis levels similar to the seismic events. Should the degree of severity of the events be within the safety margins of the SSCs, the resulting damage to the SSCs would be minimal. For high wind and tornadic events of greater intensities it is expected the SSCs would fail, but because the process equipment is typically at a high vacuum or has containment capability, the potential for release of license material is minimal. Also, the turbulent high winds would be expected to ensure a high degree of dilution and dispersion.

For flooding events the Piketon site is more than 90 feet above the 500 year flood plain associated with the Scioto River which is more than one mile to the west of the reservation. The configuration of the ACP is well beyond the design basis for a flooding event so no further consideration is necessary.

Other natural phenomena considered for the ACP are heavy rains, lightning strikes, and snow and ice accumulation. No significant consequences are expected with these events because no licensed material releases are anticipated.

Overall, if a beyond basis event did occur, depending upon the level of exceedance, it is expected that the integrity of most ACP facilities would be maintained if the forces were within the safety margins of the SSCs. Should any SSCs fail the expected failed state of the equipment is a safe state. Off normal and alarm response procedures are in place or planned to address potential accident scenarios. Workers are trained to respond to abnormal conditions and those conditions expected with natural phenomena events. The ACP has established, maintains, and is prepared to follow the PORTS Emergency Plan to ensure that plant personnel are adequately prepared for accidents or other emergencies. The scenarios addressed in the Emergency Plan include accidents involving radioactive materials, non-radioactive materials, chemicals, fires, natural disasters such as earthquakes and tornadoes, and security-related emergencies. Emergency Plan Implementing Procedures address specific requirements for responses to these scenarios and other adverse conditions.

Because of the above analyses, Emergency Plan Implementing Procedures (EPIPs) have been put in place to give direction for actions to be taken in the event of a casualty. The procedures for natural disasters give direction for beyond DBAs as well. Of relevance for natural disasters are XP2-EP-EP5032 (Severe Weather Response), XP2-EP-EP1042 (Earthquake Response), and XP2-EP-MU1100 (Mutual Aid).

Severe Weather Response EPIP:

Severe Thunderstorms may involve high winds, heavy rains, flash-flooding, and, perhaps, damaging hail. In the event of a storm that is beyond what is analyzed in our Integrated Safety Analysis (ISA) and explicitly covered in our EPIP, the EOC will be manned (as the storm escalates) and the Emergency Operations Center (EOC) commander will analyze the storm and storm damage and direct activities to mitigate further damage, injuries, and the release of any UF6. Such activities will include such things such as isolating activities involving UF6 operations (valving off or putting UF6 withdrawal systems on recycle). They will also have isolated activities involving hazardous materials (the handling and movement of hazardous waste will be prohibited).

Tornadoes in the area will be assumed to be preceded by escalating weather reports, i.e., tornado watch then tornado warning. During this escalation process the EPIP will be followed and the Plant Shift Superintendent/Incident Commander (PSS/IC) will ensure personnel have taken cover and will use their judgment to isolate activities involving UF6 operations (valving off or putting UF6 withdrawal systems on recycle). They will also have isolated activities involving hazardous materials (handling and movement of hazardous waste). Other mitigating actions will be taken per the PSS/IC's discretion such as directing crane booms to rest on the ground or lowest possible position. These things are all designed to mitigate damage and injury to personnel and to preclude any preventable release of UF6.

Flooding will be precluded by a significant rain event and will, most likely, involve exacerbating factors such as clogged drains. In this event, the PSS/IC will conduct an evaluation and will mobilize resources to mitigate damage and/or restore proper drainage.

Earthquake Response EPIP:

Per this EPIP, the PSS/IC will respond to the scene and establish a command post. The command post location will be selected in a location best suited to manage the emergency in accordance with the EPIP. For a beyond DBA earthquake the damage will be to such an extent that an emergency will be declared and the Emergency Response Organization (ERO) will be activated. In the event that multiple emergencies are taking place, for example, an earthquake and a Criticality Accident Alarm System (CAAS) activation, the PSS gives additional direction to plant personnel regarding protective actions (i.e., evacuation, take cover, shelter-in-place). The PSS may authorize actions taken outside of the procedures as required by emergency events. Most of the actions of the EPIP are still relevant for a beyond DBA and will be carried out as best as possible. Actions will include such things as Protective Force personnel controlling access to damaged structures and ensuring that safeguards and security measures are maintained and plant personnel taking personal protective measures. Additionally, emergency shutdown operations will be directed when deemed necessary and consideration will be given in regards to implementing the Mutual Aid EPIP (see below). The Crisis Manager (CM) will be maintaining total oversight of the plant during the emergency event (once the EOC is declared operational) and will be responsible for combating the casualty and initiating the recovery phase.

Mutual Aid EPIP:

For a casualty that is a beyond DBA, we are going to be requesting aid from outside organizations per this EPIP. The PSS/IC (or CM if the EOC is operational) will request assistance from off-site agencies by calling (or radioing) the Pike County Sheriff's office. The best available route will be relayed to them and, when they arrive, the CM will utilize them per their discretion.

Hartland, David

From: Corrado, Jonathan K [corradojk@usec.com]
Sent: Thursday, March 31, 2011 11:24 AM
To: Hartland, David
Subject: RE: response to Japanese earthquake

Dave,

In the response I sent you earlier I had incorrectly stated that it was Proprietary Information when in fact it is not. The information is approved for public release. Please let me know if you would like me to resend it to you via normal email.

I am sorry for the confusion.

John Corrado
ACP Regulatory
Phone: 740-897-2887

From: Corrado, Jonathan K
Sent: Thursday, March 31, 2011 9:29 AM
To: 'Hartland, David'
Cc: LaFave, Aerik R; Coriell, Kelly L; Sensue, Terry
Subject: [Secure] RE: response to Japanese earthquake

Dave,

Attached is USEC ACP's response to your email below. This document contains USEC Proprietary Information. Please let me know if you have any questions or need any additional information.

Thank you,

John Corrado
ACP Regulatory

From: Hartland, David [mailto:David.Hartland@nrc.gov]
Sent: Thursday, March 24, 2011 03:12 PM
To: Fogel, Douglas K; Sensue, Terry; Wyatt Padgett (LES) <wpadgett@nefnn.com>; borenrm@usec.com <borenrm@usec.com>; Greeno, Michael <Michael.Greeno@Honeywell.com>; Martin Jr., Thomas A.
Cc: Calle, Joselito <Joselito.Calle@nrc.gov>
Subject: response to Japanese earthquake

As I'm sure you are aware, the NRC is reviewing what impact a major earthquake would have on the facilities we regulate, including fuel facilities. Up to this point, we have reviewed your licensing documents to determine what your design basis accidents are and what safety features you have available to mitigate such accidents. Thanks to those who have provided information in support of this effort.

We now are looking for some additional information if it exists. In the event that your site encounter an accident (e.g., earthquake, flood, tornado etc) that is beyond what was analyzed, please describe what mitigating actions you have available to cope with such a disaster. These may be described in EIPs for disaster response that I recall seeing at some of the sites. Please respond by early next week.

Kirby, Janice

From: Ollis, Phillip D. (GE Power & Water) [Phillip.Ollis@ge.com]
Sent: Thursday, March 31, 2011 12:47 PM
To: Thomas, MaryLynne
Subject: RE: Please spell the Japanese location for me
Attachments: QandAs for GNF-A re Emergency.pdf

Mary,

Please see the attached document for Q & A's regarding seismic events.

Phillip Ollis
Global Nuclear Fuel
Licensing & Liabilities COE

T: (910) 819-6301
F: (910) 362-6301
D: * 292-6301
E: Phillip.Ollis@ge.com

3901 Castle Hayne Road
Mail Drop K-84
Wilmington, N.C. 28402-0780
GE Energy

From: Thomas, MaryLynne [<mailto:MaryLynne.Thomas@nrc.gov>]
Sent: Wednesday, March 30, 2011 11:47 AM
To: Ollis, Phillip D. (GE Power & Water)
Subject: RE: Please spell the Japanese location for me

Got it.

And then in response to my voicemail, are you, GE, preparing any Qs and As regarding seismic design and concerns at your Wilmington facility?

Mary L. Thomas
Senior Fuel Facility Inspector
USNRC/RII
P 404.997.4561
F 404.997.4910

From: Ollis, Phillip D. (GE Power & Water) [<mailto:Phillip.Ollis@ge.com>]
Sent: Wednesday, March 30, 2011 11:34 AM
To: Thomas, MaryLynne
Subject: RE: Please spell the Japanese location for me

Kurihama, Japan

From: Thomas, MaryLynne [<mailto:MaryLynne.Thomas@nrc.gov>]
Sent: Wednesday, March 30, 2011 9:56 AM
To: Ollis, Phillip D. (GE Power & Water)
Subject: Please spell the Japanese location for me

I'll need to be able to point to it on a map.

Thanks

Mary L. Thomas
Senior Fuel Facility Inspector
USNRC/RII
P 404.997.4561
F 404.997.4910

Questions and Answers for GNF-A Regarding Seismic Emergencies - Revision 1
March 21, 2011

(b)(4)

(b)(4)

Kirby, Janice

From: Ollis, Phillip D. (GE Power & Water) [Phillip.Ollis@ge.com]
Sent: Thursday, March 31, 2011 12:51 PM
To: Thomas, MaryLynne
Subject: RE: Please spell the Japanese location for me

It should – same document.

From: Thomas, MaryLynne [mailto:MaryLynne.Thomas@nrc.gov]
Sent: Thursday, March 31, 2011 12:50 PM
To: Ollis, Phillip D. (GE Power & Water)
Subject: RE: Please spell the Japanese location for me

Thanks, Phil.

This looks curiously like what NMSS put out last week.

Mary L. Thomas
Senior Fuel Facility Inspector
USNRC/RII
P 404.997.4561
F 404.997.4910

From: Ollis, Phillip D. (GE Power & Water) [mailto:Phillip.Ollis@ge.com]
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Subject: RE: Please spell the Japanese location for me

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Phillip Ollis
Global Nuclear Fuel
Licensing & Liabilities COE

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GE Energy

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To: Ollis, Phillip D. (GE Power & Water)
Subject: RE: Please spell the Japanese location for me

Got it.

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Mary L. Thomas
Senior Fuel Facility Inspector
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P 404.997.4561
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Sent: Wednesday, March 30, 2011 11:34 AM
To: Thomas, MaryLynne
Subject: RE: Please spell the Japanese location for me

Kurihama, Japan

From: Thomas, MaryLynne [<mailto:MaryLynne.Thomas@nrc.gov>]
Sent: Wednesday, March 30, 2011 9:56 AM
To: Ollis, Phillip D. (GE Power & Water)
Subject: Please spell the Japanese location for me

I'll need to be able to point to it on a map.

Thanks

Mary L. Thomas
Senior Fuel Facility Inspector
USNRC/RII
P 404.997.4561
F 404.997.4910

Romano, Michelle

From: ISIS [isis@isis-online.org]
Sent: Thursday, March 31, 2011 1:23 PM
To: Romano, Michelle
Subject: Fukushima Crisis: A Chronology--Preliminary Assessment of Accident Sequence

Institute for Science and International Security

ISIS REPORT

Fukushima Crisis: A Chronology

Preliminary Assessment of Accident Sequences and Potential Atmospheric Radiation Releases

by David Albright, Paul Brannan, and Christina Walrond

March 31, 2011

ISIS has collected data to better understand atmospheric radiation releases, ground level wind patterns, and instances of unmonitored radiation releases to the atmosphere from the Fukushima Daiichi nuclear reactors. The radiation readings and ground level wind directions are from the TEPCO web site. ISIS could not validate TEPCO's information, but the data appear adequate to conduct some scoping analysis of the releases. Using this information, ISIS has sought to understand the fate of the releases and determine whether radiation monitoring stations intersected the plume of released radioactive material. We welcome any input.

Since March 11, reactor units 1-4 at the Fukushima Daiichi nuclear plant have experienced hydrogen explosions, fires, partial melting of irradiated or "spent" fuel in the reactors, the uncovering and possible burning of irradiated fuel in spent fuel ponds at reactor 4 and perhaps other reactors. Table 1 lists several known accidents that occurred through March 18. These accidents, and perhaps ones that were not noticed or reported, released significant amounts of radiation into the atmosphere that the winds spread widely. They all require greater scrutiny.

From an analysis of the limited data on atmospheric releases, ISIS has developed several key findings. The first is that the limited radiation detection capabilities at the Fukushima Daiichi plant following the earthquake and tsunami eliminated the ability to detect, characterize, or track a release of radiation. Many releases went partially or completely undetected by on-site monitoring. None of the releases from accidents were monitored as to their radioactive contents. Although the amount and type of radionuclides in these releases cannot be estimated from the existing on-site monitoring data, the existing data support that the potential for significant radiation doses to off-site population exists, particularly in sectors northwest and southwest of the reactors. Second, ground level winds often blew inland in the days immediately after the earthquake, contrary to many reports that stated that the radiation was carried out to sea by prevailing winds. While prevailing winds would also have an effect on the longer-range dispersal of radiation, the area outside the plant received elevated levels of radiation as a result of these local wind patterns. In the first 24-48 hours after the shutdown of the reactors, these releases would have contained significantly more radioactivity due to relatively short-lived volatile and gaseous radionuclides. As a result, these releases could have resulted in higher doses to the local population than has been assumed. The most affected would be those closer to the reactors caught in the plume of radiation coming from the accidents, such as people who had not yet evacuated beyond 20 kilometers of the site. However, others outside this 20-kilometer radius could have also received significant doses from the radioactive plumes emanating from the reactors.

Third, the existing monitoring data support that the largest off-site atmospheric releases occurred prior to March 18 or 19. From then through March 25, the end date of this study, atmospheric releases appear to have diminished substantially. However, the potential for large atmospheric releases remains without significant intervention to cool the reactors and spent fuel ponds of units 1-4. Moreover, releases into the sea and ground water have increased as a result of all the water spraying of the reactor buildings.

Fourth, the releases need to be better assessed as to their amounts, radioactive content, and off-site transport in order to better identify exposed populations and determine their radiation doses and health risks. The Japanese

government should start assembling an expert group that can credibly assess the releases and risks to the population and communicate its findings to the Japanese public. To enhance its credibility, this group should include experts that are independent of the nuclear power industry.

Fifth, in order to reduce the occurrences of partially monitored and unmonitored releases, a priority should be repairing or deploying on-site monitoring stations and more frequently characterizing atmospheric emissions from the site and their fate. Although authorities are monitoring more consistently now, they need to reestablish systematic routine monitoring as soon as possible so as to better warn of any releases from the damaged reactors and spent fuel ponds and alleviate public anxiety about additional radiation releases.

Read the full report with imagery and data tables at: [Fukushima Crisis: A Chronology -- Preliminary Assessment of Accident Sequences and Potential Atmospheric Radiation Releases](#)

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Washington, DC 20002

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Musser, Randy

From: Musser, Randy
Sent: Thursday, March 31, 2011 1:57 PM
To: 'Wilson, Gerald'; Worosilo, Jannette
Subject: Japanese FAQ Sharepoint

<http://portal.nrc.gov/edo/nrr/NRR%20TA/FAQ%20Related%20to%20Events%20Occuring%20in%20Japan/Forms/AllItems.aspx>

Musser, Randy

From: Musser, Randy
Sent: Friday, April 01, 2011 8:06 AM
To: Sykes, Marvin; Vias, Steven
Subject: FW: NRC Posts Updated Seismic Questions and Answers
Attachments: 11-053.pdf

What we talked about at lunch. FAQs related to Japan.

From: Musser, Randy
Sent: Monday, March 28, 2011 11:08 AM
To: Bartley, Jonathan; Shaeffer, Scott; Rich, Daniel; McCoy, Gerald; Guthrie, Eugene
Subject: FW: NRC Posts Updated Seismic Questions and Answers

As discussed in this morning's meeting.

From: Croteau, Rick
Sent: Monday, March 21, 2011 9:04 AM
To: Musser, Randy
Subject: FW: NRC Posts Updated Seismic Questions and Answers

Please bring copies of this to the EOC meeting. 25 copies?

From: McCree, Victor
Sent: Monday, March 21, 2011 8:46 AM
To: Croteau, Rick; Jones, William; Munday, Joel; Wert, Leonard; Gody, Tony; Cobey, Eugene
Cc: Ledford, Joey; Hannah, Roger
Subject: FW: NRC Posts Updated Seismic Questions and Answers

See attached. You may want to make copies of these Q&As and make them available for members of the public at the upcoming EOC and LPR meetings.

Vic

From: OST05 Hoc
Sent: Monday, March 21, 2011 7:57 AM
To: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta; Piccone, Josephine; Jackson, Deborah
Subject: NRC Posts Updated Seismic Questions and Answers

NRC posted a series of seismic and tsunami Q's and A's over the weekend.

Feel free to forward to interested stakeholders.

Heher, Elaine

From: Heher, Elaine
Sent: Friday, April 01, 2011 8:30 AM
To: Adkins, Brannen
Subject: hey

Hi!

Hope you are fine! So I guess they won't be pouring much concrete at MOX ... I wonder how long would it take to move that big pump to Japan!

Concrete Pump In Service At SRS MOX Plant Site Heading For Japan. The Augusta (GA) Chronicle (4/1, Pavey) reports, "The world's largest concrete pump, deployed at the construction site of the US government's \$4.86 billion mixed oxide fuel plant at Savannah River Site, is being moved to Japan in a series of emergency measures to help stabilize the Fukushima reactors." Jerry Ashmore, whose company is the concrete supplier for the MOX facility, said, "The bottom line is, the Japanese need this particular unit worse than we do, so we're giving it up." He added, "There are only three of these pumps in the world, of which two are suited for this work, so we have to get it there as soon as we can...Time is very much a factor." Company officials "have already notified Shaw AREVA MOX Services, which is building the MOX plant for the [NNSA], that the pump was being moved and will not be returned." Ashmore said, "It will be too hot to come back."

The AP (4/1) also covers this story, reporting that "two gigantic concrete pumps - described as the largest such equipment in the world - will soon be on their way to join the machinery being used to pour water on damaged reactors in Japan's nuclear crisis, company officials said Thursday." In addition to the pump currently at SRS, one from California will also be sent. Kelly Blicke, a spokeswoman at Putzmeister America which manufactures the equipment, said that "initially, the machines would be used to shoot water on the reactor...But a decision is made to encase a reactor in concrete - similar to a method used in the 1986 Chernobyl disaster - the machines would be capable of doing that as well."

<http://www.bulletinnews.com/nrc/>

Elaine R. Heher
Division of Construction Inspection, Construction Inspection Branch 2
U.S. Nuclear Regulatory Commission - Region II
245 Peachtree Center Ave., NE Suite 1200
Atlanta, GA 30303-1257
404-997-4449

Wert, Leonard

From: Wert, Leonard
Sent: Friday, April 01, 2011 8:34 AM
To: R2MAIL; R2_RESIDENT SITES
Subject: ~~FOR OFFICIAL USE ONLY~~ - 0430 EDT (01 April 2011) USNRC Earthquake/Tsunami SitRep - ~~FOR OFFICIAL USE ONLY~~
Attachments: NRC Status Update 4 01 11--0430.pdf

~~FOR OFFICIAL USE ONLY~~

Attached, for your information, is the NRC situation report dated 0430, April 1, 2011, regarding the impacts of the Japan earthquake/tsunami event. This document is considered **FOR OFFICIAL USE ONLY** and is not to be distributed outside the agency.

Len

~~FOR OFFICIAL USE ONLY~~

Heher, Elaine

From: Heher, Elaine
Sent: Friday, April 01, 2011 9:02 AM
To: Masters, Anthony
Subject: RE: mox

Nice!

From: Masters, Anthony
Sent: Friday, April 01, 2011 8:57 AM
To: Heher, Elaine
Subject: RE: mox

Neat! I actually got involved with doing some research requested by Alan Blamey a couple of weeks ago about the possibility of using concrete pumps for discharging water, that he sent to the HOO for sending to the US Embassy in Japan. It was good to see that perhaps that information went to good use and may have contributed in some way.

Anthony D. Masters, PE
Senior Construction Inspector
Division of Construction Inspections
U.S. Nuclear Regulatory Commission
Region II - Atlanta
(404) 997 - 4465 (office phone)
(404) 997 - 4917 (fax)
Anthony.Masters@nrc.gov

From: Heher, Elaine
Sent: Friday, April 01, 2011 8:53 AM
To: Masters, Anthony
Subject: mox

Hey,
MOX is helping out Japan too! I hope the pump will be back for your MOX inspection (although is a PI&R).

Concrete Pump In Service At SRS MOX Plant Site Heading For Japan. The Augusta (GA) Chronicle (4/1, Pavey) reports, "The world's largest concrete pump, deployed at the construction site of the US government's \$4.86 billion mixed oxide fuel plant at Savannah River Site, is being moved to Japan in a series of emergency measures to help stabilize the Fukushima reactors." Jerry Ashmore, whose company is the concrete supplier for the MOX facility, said, "The bottom line is, the Japanese need this particular unit worse than we do, so we're giving it up." He added, "There are only three of these pumps in the world, of which two are suited for this work, so we have to get it there as soon as we can...Time is very much a factor." Company officials "have already notified Shaw AREVA MOX Services, which is building the MOX plant for the [NNSA], that the pump was being moved and will not be returned." Ashmore said, "It will be too hot to come back."

The AP (4/1) also covers this story, reporting that "two gigantic concrete pumps - described as the largest such equipment in the world - will soon be on their way to join the machinery being used to pour water on damaged reactors in Japan's nuclear crisis, company officials said Thursday." In addition to the pump currently at SRS, one from California will also be sent. Kelly Bickle, a spokeswoman at Putzmeister America which manufactures the equipment, said that "initially, the machines would be used to shoot water on the

reactor...But a decision is made to encase a reactor in concrete - similar to a method used in the 1986 Chernobyl disaster - the machines would be capable of doing that as well."

<http://www.bulletinnews.com/nrc/>

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404-997-4449

Romano, Michelle

From: ISIS [isis@isis-online.org]
Sent: Friday, April 01, 2011 10:53 AM
To: Romano, Michelle
Subject: Characterizing the Crisis at Fukushima Daiichi Nuclear Power Station

Institute for Science and International Security

ISIS REPORT

Characterizing the Crisis at Fukushima Daiichi Nuclear Power Station

by David Albright and Christina Walrond

April 1, 2011

During the crisis at the Fukushima nuclear power reactors following the earthquake and tsunami on March 11, 2011, the Japanese Safety Authority issued ratings for the accident on the International Nuclear Events Scale (INES). Initially, it stated that the incident was a level 4, but it subsequently raised the levels assigned to each reactor, with the majority receiving a level 5. Table 1 indicates the latest ratings issued March 18 by the Japanese authority, where it has parsed the ratings based on accidents at individual reactors. Although the radioactivity is emitted from different reactor buildings, it represents a collective hazard to public health. As such, the accident should be judged comprehensively, not only in component parts. Simply because some aspects of the crisis were not as catastrophic as others does not lessen the overall severity of the accident. ISIS continues to assess that the accident is a level 6.

The INES system exists to communicate with the public about the severity and extent of a nuclear event. It is meant to provide a guide, such as the Richter scale for earthquakes, to qualify a nuclear accident. As such, it is important to accurately rate a radiological event in order to afford the public the time and information needed to take necessary precautions.

The INES scale rates radiological events on seven levels. Levels 1-3 are termed "incidents," and levels 4-7 are called "accidents." Each level in the scale is supposed to represent a tenfold increase in severity. Table 2 indicates the INES scale's qualifications for each level of incident or accident. For example, in 2005 at Atucha, Argentina, a level 2 incident occurred when a worker exceeded his annual level of exposure. Three Mile Island experienced a level 5 accident when the reactor core lost coolant and partially melted down. The Chernobyl disaster is rated a level 7 accident, as the explosion in the reactor had widespread environmental and health implications. In a level 6 accident, according to the INES scale, "it is very likely that protective action such as sheltering and evacuation will be judged necessary to prevent or limit health effects on members of the public." Throughout the disaster, Japan has continued to expand its zone of evacuations.

The Japanese authority's rating of level 5 indicates that in their opinion, the release of radiation is limited, and only some planned countermeasures need to be implemented. However, unlike the accident at Three Mile Island, the Fukushima Daiichi situation involves three reactors as well as on-site spent fuel ponds with exposed fuel rods, instead of only one reactor core. The amount of radioactivity released, particularly in the first week after the accident, was significant. It was perhaps even worse than initially assumed because much of the radiation released in the days immediately following the tsunami may not have been detected because of inoperative or limited radiation monitoring equipment at the site. Additionally, much radiation has been released into water on-site and into the sea. This contamination will likely have significant environmental implications and require the implementation of additional countermeasures.

It is imperative that the accident at Fukushima is characterized appropriately, as the INES scale exists to inform and alert the public about the risks it faces as a result of a radiological disaster. Based on the venting of radioactively contaminated steam from the reactors, the hydrogen explosions and fires at the reactors, the possible burning of spent fuel in unit 4's pond, the amount of radiation released, the extent of the radiological contamination on land and in the sea, and the level of countermeasures implemented, the situation at Fukushima Daiichi should be characterized a level 6 accident.

See the full report with tables and ratings at: [Characterizing the Crisis at Fukushima Daiichi Nuclear Power Station](#)

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Washington, DC 20002

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Wert, Leonard

From: Bartley, Jonathan
Sent: Friday, April 01, 2011 3:30 PM
To: Wert, Leonard
Subject: RE: 4/1 - Commissioners Assistant Briefing on Japan

I haven't heard that we have the RIII Q&A's for the EOCs. I believe Randy M used the Q&A's available on the public web site (and that's what Gerry is planning to use next week).

From: Wert, Leonard
Sent: Friday, April 01, 2011 3:00 PM
To: Bartley, Jonathan
Subject: FW: 4/1 - Commissioners Assistant Briefing on Japan

Jonathan,

On #5 below, do we have those Q & As?

Thanks, Len

From: Sykes, Marvin
Sent: Friday, April 01, 2011 2:27 PM
To: McCree, Victor
Cc: Wert, Leonard
Subject: 4/1 - Commissioners Assistant Briefing on Japan

Vic,

I participated in the April 1 daily call conducted by Mike Weber.

Site status reported was consistent with information provided in April 1, 0430 Sit-Rep from HOC.

Also discussed the following issues:

1. EPA, Naval Reactors and Dept. of Energy reducing Ops Center coverage. No planned change in NRC staffing levels at this time.
2.

(b)(5)
3. Marine Division trained to protect U.S. citizens in response to a large scale nuclear release have been deployed to Japan.
4. Japanese press reporting on a 1981 safety study evaluating SBO impacts at Browns Ferry. NRC staff researching.
5. Eric Leeds speaking to Nat'l Governors Association - Energy Advisors. E. Brenner suggested using Q&As developed by Region III for EOCs.
6. Weekend briefings are scheduled for 0830.

Please call with questions

Wert, Leonard

From: McCree, Victor
Sent: Friday, April 01, 2011 5:39 PM
To: Miller, Charles; Leeds, Eric; Johnson, Michael; Wiggins, Jim; Sheron, Brian; Moore, Scott; Zimmerman, Roy; Dean, Bill; Satorius, Mark; Collins, Elmo; Haney, Catherine; Doane, Margaret
Cc: Virgilio, Martin; Weber, Michael; Borchardt, Bill; Grobe, Jack; Holahan, Gary; Williamson, Edward; Spencer, Mary; Cubbage, Amy; Sanfilippo, Nathan; Dorman, Dan; Rogers, Walt; Wert, Leonard
Subject: Re: Task force support and outline

Charlie - please use Walt Rogers as the Region II point-of-contact.

Vic

This email is being sent from an NRC Blackberry device.

From: Miller, Charles
To: Leeds, Eric; Johnson, Michael; Wiggins, Jim; Sheron, Brian; Moore, Scott; Zimmerman, Roy; Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Haney, Catherine; Doane, Margaret
Cc: Virgilio, Martin; Weber, Michael; Borchardt, Bill; Grobe, Jack; Holahan, Gary; Williamson, Edward; Spencer, Mary; Cubbage, Amy; Sanfilippo, Nathan; Dorman, Dan
Sent: Fri Apr 01 15:32:16 2011
Subject: Task force support and outline

Over the course of the past week, the task force has been chartered (attached) and begun its work. We have developed a working outline (also attached) that the task force will follow in pursuing this task. During this effort, we will need support from various agency technical experts from many of your offices or regions. We expect this input to largely be in the form of technical advice, informal briefings, and pulled from existing documents which will aid us in formulating our recommendations to the Commission. Please let me know the best way to coordinate support with your office. One method would be to identify a primary point of contact to coordinate support for the task force; however, I'm open to other suggestions to suit your needs. We will try to minimize the impact on your offices and regions resources so that you can continue to go about your normal agency responsibilities and duties.

To date, the task force has had the benefit of interviewing some members of the team dispatched to Japan to gain their insights and seek their feedback on the scope of our efforts (included in the attached outline). In addition, Dan Dorman will be joining the task force upon return from Japan which will further inform our efforts.

I appreciate your continued cooperation to ensure the success of this agency effort. For example, we have already been able to schedule meetings next week with agency seismic and flooding experts. We will keep you informed as the review progresses, particularly on matters that could affect your programs.



Project 8888 SCDHEC Sampling Efforts Fukushima Dai-Ichi
4/1/2011

ROUTINE

Facility	Location	Air	Drinking Water	Precipitation	Direct Readings	Soil	Vegetation	Milk	TLDs
Oconee	21-0538 (Duke Rec)	Monthly							
	21-5781 (WTP KEOWEE Key)	Monthly							
	Seneca Water Supply (EPA RadNet)		Quarterly						
	Area within 10 mile EPZ								12 (Quarterly)
Catawba	21-0881 (Catawba Overlook)	Monthly							
	21-0869 (Bluebird Ln)	Monthly							
	Area within 10 mile EPZ								12 (Quarterly)
VC Summer	21-0731 (Garden Plot)	Monthly							
	21-0736 (Monticello)	Monthly							
	Jenkinsville (EPA RadNet)		Quarterly						
	Area within 10 mile EPZ								12 (Quarterly)
HB Robinson	21-0230 (Visitor's Center)	Monthly							
	21-0238 (Johnson's Marina)	Monthly							
	Area within 10 mile EPZ								12 (Quarterly)
Barnwell Co.	Barnwell (for EPA RadNet)		Quarterly						
Aiken EQC Regional Office	EQC Aiken Regional Office							5(Quarterly)	

* NOTE: SC nuclear power plants provide some split samples to our rad lab for analysis.

Post- Fukushima Dai-ichi

Facility	Location	Air	Drinking Water	Precipitation	Direct Readings	Soil	Vegetation	Milk	TLDs
Oconee	21-0538 (Duke Rec)	Weekly (Mon)			X				
	21-5781 (WTP KEOWEE Key)	Weekly (Mon)		As Available	X		one time		
	Seneca Water Supply (EPA RadNet)		Quarterly						
	Area within 10 mile EPZ								12 (Quarterly)
Catawba	21-0881 (Catawba Overlook)	Weekly (Tues)		As Available					
	21-0869 (Bluebird Ln)	Weekly (Tues)							
	Area within 10 mile EPZ								12 (Quarterly)
VC Summer	21-0731 (Garden Plot)	Weekly (Wed)		As Available					
	21-0736 (Monticello)	Weekly (Wed)							
	Jenkinsville (EPA RadNet)		Quarterly						
	Area within 10 mile EPZ								12 (Quarterly)
HB Robinson	21-0230 (Visitor's Center)	Weekly (Mon)							
	21-0238 (Johnson's Marina)	Weekly (Mon)							
	Area within 10 mile EPZ								12 (Quarterly)
Barnwell Co.	Barnwell (for EPA RadNet)		Quarterly						
Control Group (Columbia)	21-8888 (State Park- Building 15)	Weekly (Tues)							
	21-0001 (DHEC 2600 Bull St)	Weekly (Tues)		As Available					
Aiken EQC Regional Office	EQC Aiken Regional Office							5(Quarterly)	

* NOTE: SC nuclear power plants provide split samples to our rad lab for analysis

scdhac/waer/stdsm/4/1/2011

SC DHEC Air Sampling Results as of April 1, 2011													
Location	Sample ID	Sample Type	Date Collected	Be-7 (pCi/m3)	1 yr Dose (mrem)	K-40 (pCi/m3)	1 yr Dose (mrem)	Co-60 (pCi/m3)	1 yr Dose (mrem)	I-131 (pCi/m3)	1 yr Dose (mrem)	Cs-137 (pCi/m3)	1 yr Dose (mrem)
Oconee	XA21605	Air	21-Mar	<MDA		0.633	8.20E-02	<MDA		0.035	1.20E-02	<MDA	
Oconee	XA21606	Air	21-Mar	<MDA		0.477	6.18E-02	0.85 ¹	1.95E+00	<MDA		<MDA	
Columbia – Bull St	XA21619	Air	22-Mar	<MDA		0.631	8.17E-02	<MDA		0.047	1.61E-02	<MDA	
Columbia – State Park	XA21604	Air	22-Mar	<MDA		0.633	8.20E-02	<MDA		<MDA		<MDA	
Oconee	XA21614	Air	28-Mar	<MDA		0.698	9.03E-02	<MDA		0.061	2.12E-02	<MDA	
Oconee	XA21615	Air	28-Mar	<MDA		0.591	7.65E-02	<MDA		0.071	2.47E-02	<MDA	

NPP Collected Air Sampling Results as of April 1, 2011													
Location	Sample ID	Sample Type	Date Collected	Be-7 (pCi/m3)	1 yr Dose (mrem)	K-40 (pCi/m3)	1 yr Dose (mrem)	Co-60 (pCi/m3)	1 yr Dose (mrem)	I-131 (pCi/m3)	1 yr Dose (mrem)	Cs-137 (pCi/m3)	1 yr Dose (mrem)
Oconee	074	Air	21-Mar	<MDA		<MDA		<MDA		0.021	7.22E-03	<MDA	
Oconee	077	Air	21-Mar	<MDA		<MDA		<MDA		0.019	6.57E-03	<MDA	
Oconee	078.1	Air	21-Mar	<MDA		<MDA		<MDA		0.022	7.74E-03	<MDA	
Oconee	079	Air	21-Mar	<MDA		<MDA		<MDA		0.024	8.43E-03	0.005	1.52E-03
Oconee	081	Air	21-Mar	<MDA		<MDA		<MDA		0.013	4.42E-03	<MDA	
Oconee	084	Air	21-Mar	<MDA		<MDA		<MDA		0.018	6.26E-03	<MDA	
Catawba	200	Air	22-Mar	<MDA		<MDA		<MDA		0.027	9.47E-03	<MDA	
Catawba	201	Air	22-Mar	<MDA		<MDA		<MDA		0.024	8.16E-03	<MDA	
Catawba	205	Air	22-Mar	<MDA		<MDA		<MDA		0.012	4.15E-03	<MDA	
Catawba	212	Air	22-Mar	<MDA		<MDA		<MDA		0.028	9.57E-03	<MDA	
Catawba	258	Air	22-Mar	<MDA		<MDA		<MDA		0.028	9.61E-03	<MDA	
Catawba	259	Air	22-Mar	<MDA		<MDA		<MDA		0.017	6.01E-03	<MDA	

¹ While the presence of Cobalt-60 was detected on the air sample cartridge, it was not detected on the air sample filter. The cartridge and filter are being submitted to a commercial laboratory for re-analysis.

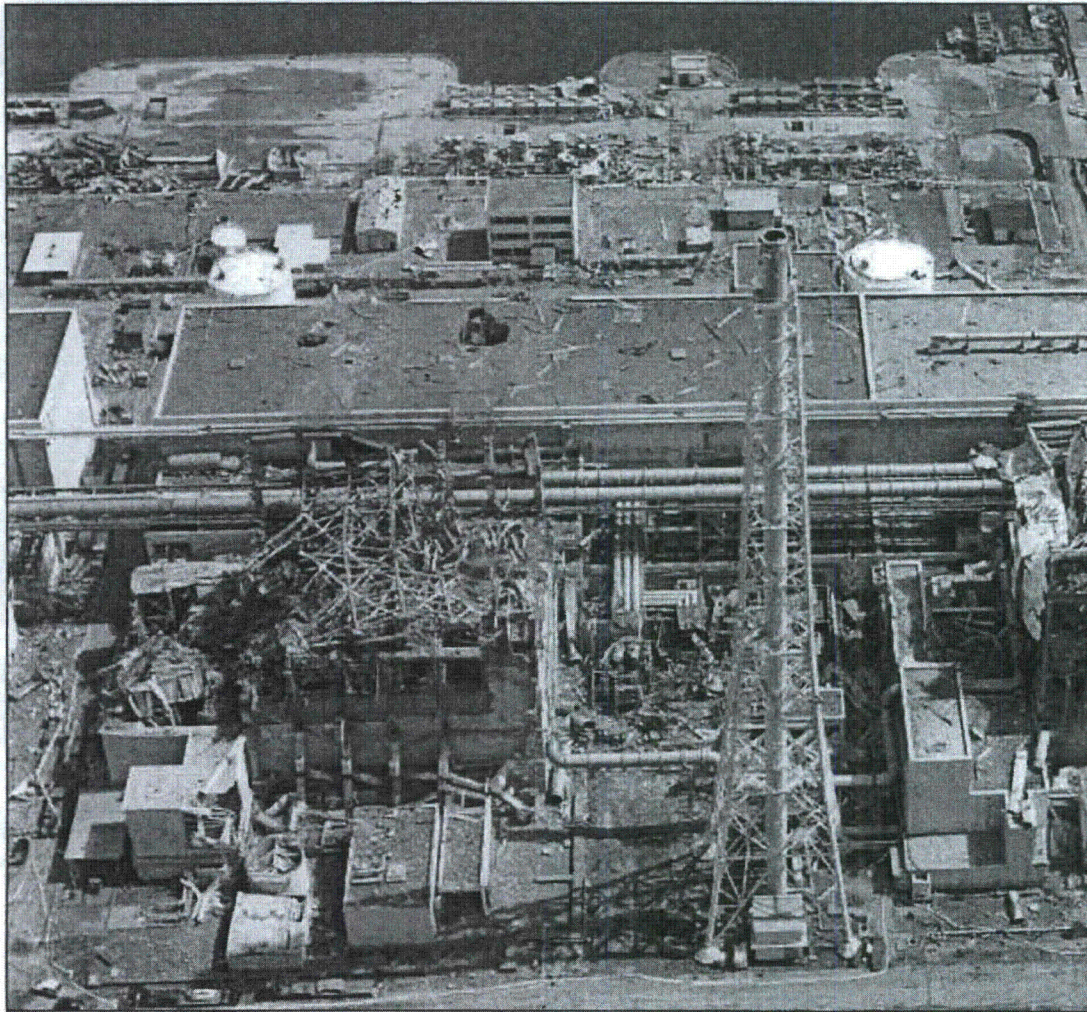
<MDA = Less than Minimum Detectable Activity

SC DHEC Precipitation Sampling Results as of April 1, 2011													
Location	Sample ID	Sample Type	Date Collected	Be-7 (pCi/L)	1 yr Dose (mrem)	K-40 (pCi/L)	1 yr Dose (mrem)	Co-60 (pCi/L)	1 yr Dose (mrem)	I-131 (pCi/L)	1 yr Dose (mrem)	Cs-137 (pCi/L)	1 yr Dose (mrem)
Columbia - State Park	XA21618	Precip	29-Mar	<MDA		<MDA		<MDA		19.8		<MDA	
Catawba	XA21637	Precip	29-Mar	48.5		<MDA		<MDA		33.2		<MDA	

<MDA = Less than Minimum Detectable Activity

Wert, Leonard

From: Thomas Saporito [redacted] on behalf of Thomas Saporito [thomas@saprodani-associates.com]
Sent: Saturday, April 02, 2011 6:25 AM
Subject: Fwd: <<< NEWS: Robot Plane Takes Stunning Pictures of Damaged Nuclear Plants >>>



Too dangerous: An unmanned drone took this aerial photo of the wrecked reactors three, left, and, four.
[Read more...](#)

Thomas Saporito, Senior Consulting Associate
Email: thomas@saprodani-associates.com
Web: <http://Saprodani-Associates.com>
Post Office Box 8413, Jupiter, Florida 33468
Phone: (561) 972-8363 Fax: (561) 247-6404
Saprodani-Associates - Advocate/GreenPeace USA

Wert, Leonard

From: Thomas Saporito [REDACTED] (b)(6) on behalf of Thomas Saporito [thomas@saprodani-associates.com]
Sent: Saturday, April 02, 2011 7:47 PM
Subject: Fwd: <<< NEWS: Quick Fix Fails at Fukushima Nuclear Plant >>>

Los Angeles Times | WORLD

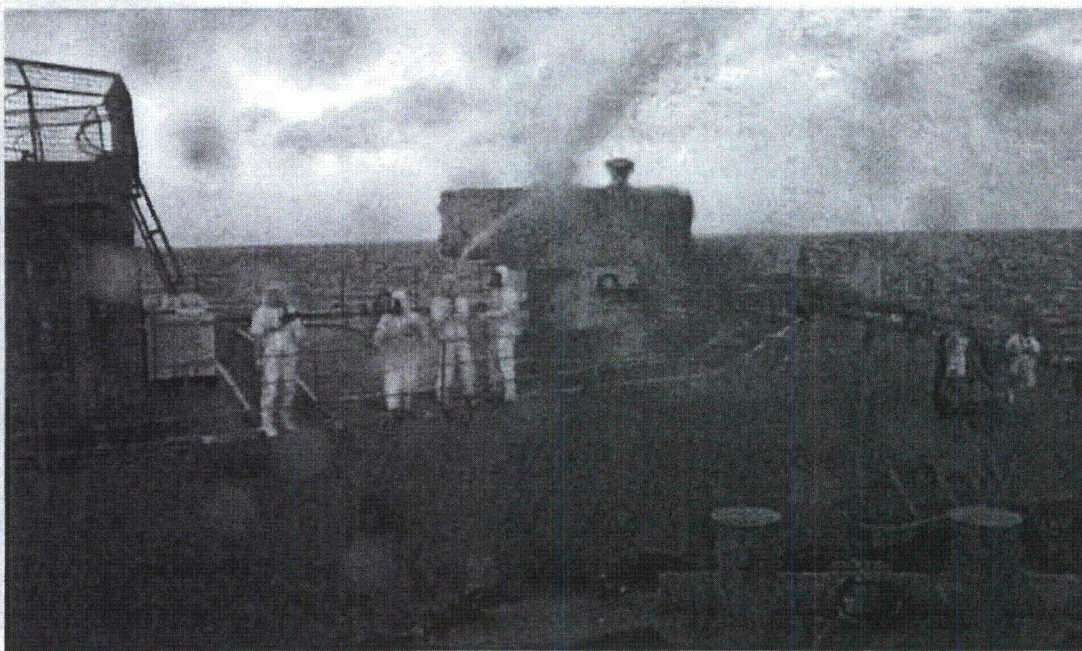
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Concrete fails to plug leak at Fukushima nuclear plant

An operator at Fukushima Daiichi nuclear plant says highly radioactive water from a pit near a reactor continues to leak into the ocean. Tepco officials plan to explore using a polymer in another attempt to stop the flow.



Members of the Japan Maritime Self-Defense Force spray water onto the wharf of the Fukushima Daiichi nuclear power plant. Workers pumped concrete into a leaking pit holding power cables near reactor No. 2 Saturday in an attempt to stop a leak of radioactive water. (Japan Ministry of Defense via Bloomberg / March 31, 2011)

[Read more...](#)

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Saprohani-Associates - Advocate/GreenPeace USA

Wert, Leonard

From: Thomas Saporito [redacted] (b)(6) on behalf of Thomas Saporito [thomas@saprodani-associates.com]
Sent: Saturday, April 02, 2011 8:41 PM
Subject: Fwd: <<< How Safe is the Turkey Point Nuclear Plant? >>>

Please click here to watch...

--

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Saprodani-Associates - Advocate/GreenPeace USA

Wert, Leonard

From: Sykes, Marvin
Sent: Sunday, April 03, 2011 9:11 AM
To: McCree, Victor; Wert, Leonard
Subject: April 3 briefing on events in Japan

Vic,

No significant change reported in plant status.

Additional dose modeling requested by US ambassador will not be performed. White House noted that prior runs provided sufficient information.

Two bodies were found in turbine bldg basement. Missing since March 11. Likely victims of tsunami.

Next briefing on Monday at 1000.

Call if you have questions.

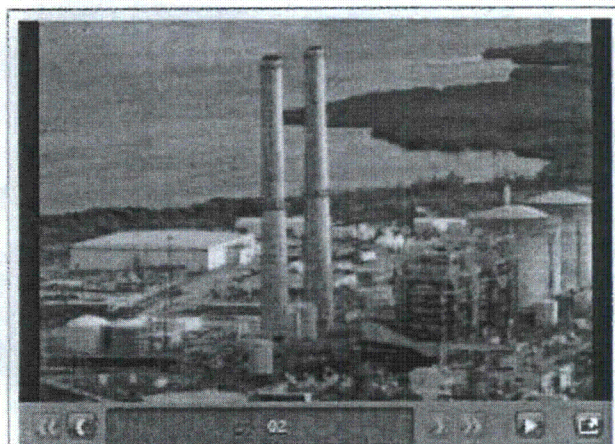
This email is being sent from an NRC Blackberry device.

Wert, Leonard

From: Thomas Saporito (b)(6) on behalf of Thomas Saporito [thomas@saprodani-associates.com]
Sent: Sunday, April 03, 2011 3:37 PM
Subject: Fwd: <<< NEWS: FPL Turkey Point Nuclear Plant >>>

Disaster fuels debate over nuclear accident evacuation plans

Emergency managers are confident they could protect the public in the remote chance of an accident at Turkey Point, but the high risk and "dread factor" of radiation raises questions about emergency plans in South Florida.



Turkey Point nuclear plant Lynne Sladky / AP

BY CURTIS MORGAN
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Dead-center in hurricane alley, South Florida has probably performed more large-scale evacuations than any place in the country.

But a wind-borne cloud of radioactive isotopes represents a different monster, unseen but every bit as scary as a powerful cane. For emergency managers thrust into a crisis like the one in Japan, the concern would not be the few ignoring orders to leave Turkey Point's 10-mile evacuation zone.

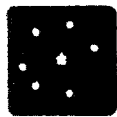
"The big issue is how many people will leave outside the evacuation zone," said Jay Baker, a Florida State University geography professor and authority on evacuation behavior who conducted

hazard response surveys for a state study last year. "No one knows, to be honest with you."

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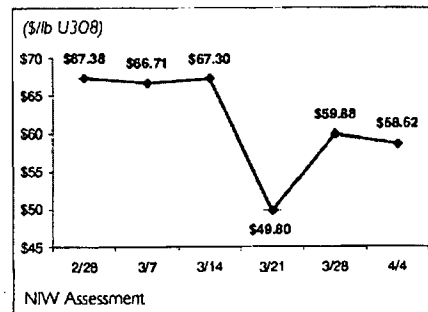


NUCLEAR INTELLIGENCE WEEKLY

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Vol. V, No. 14, April 4, 2011

UPP: \$58.62/lb U3O8


Market Points

The uranium spot price fell by just over a dollar this week, with the Uranium Price Panel's price of \$58.62/lb U3O8 indicating that the post-Fukushima extreme volatility may be past.

Due to an incredibly volatile uranium spot market, but much quieter conversion and enrichment markets, NIV gives March price ranges of \$50/lb U3O8 to \$67/lb for spot uranium, \$11/kgU to \$12/kgU for conversion and \$154/SWU to \$155/SWU for enrichment.

Areva declared the forecasts in its 2010 Reference Document released last week "no longer relevant" because of Fukushima and promised a review of all its operations, including its front-end outlook in light of the disaster.

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WEEKLY ROUNDUP

Japan: Focus Shifts at Daiichi As Battle to Maintain Control Continues

- With Tepco's president hospitalized, the utility's workers continue the battle to keep the stricken Fukushima Daiichi nuclear plant under control, but they've had to shift their focus onto another problem — the leakage of contaminated water into other spaces — and, crucially now, into the Pacific (p3). Meanwhile, besides sea water, contamination is turning up in drinking water and soil at and around the plant — including high levels in one town far outside the evacuation area (p4).
- The partial meltdown in Japan is the result of errors "from the very beginning," IAEA deputy director general and head of the department of nuclear safety & security Denis Flory said today, according to Bloomberg. "Such an accident should not have happened," Flory, who is French, told a press briefing in Vienna. "Something was not done from the very beginning," Flory added that measurement instruments inside the plant are probably damaged and that there "is a lot of information that is not available."
- UBS weighed in with a critique today as well. "We believe the Fukushima accident was the most serious ever for the credibility of nuclear power," reads a massive report on global nuclear power released today by the Swiss bank. "Chernobyl affected one reactor in a totalitarian state with no safety culture. At Fukushima, four reactors have been out of control for weeks — casting doubt on whether even an advanced economy can master nuclear safety." The report found that Fukushima will have a wide-ranging impact on existing nuclear plants as well as new build plans. "We believe that most countries, even pro-nuclear countries such as France, will be required to close at least a couple of plants to show political action and to restore public acceptance of nuclear power generation."
- Meanwhile the EU's top climate negotiator, Artur Runge-Metzger, told reporters in Bangkok yesterday that the EU will rethink its recently released 2050 roadmap on low-carbon growth in the aftermath of the Fukushima crisis, according to Reuters. The new analysis will include "low-nuclear scenarios," and will be released in the fall.
- There is a growing consensus that the Japanese government will not allow Tepco to fail simply because of its importance to the overall economy but how it will help is as yet unclear (p5).
- If there is a bright light for any sector of the nuclear industry, it could be in dry cask manufacturing. Spent fuel pool problems at Daiichi have given new impetus to long-standing calls to transfer spent fuel from wet to dry storage at reactors around the world (p7).
- Press reports indicating that Fukushima has prompted China to cut its 2020 target for nuclear power capacity and build more solar farms appear to be incorrect — or at least premature (p8). Nevertheless, experts expect China's new build to be at least somewhat affected. The UBS report said "safety inspections and suspension of approvals may cause delays in project construction and imply downside to the 2015 and 2020 nuclear power targets." ☼

MARKET

A New Normal Post-Fukushima?

With the Uranium Price Panel delivering a price of \$58.62/lb U3O8, just over a dollar below last week's level, it appears that the spot price has stabilized to just below \$60/lb. This comes after it dramatically fell 26% in the days following the Japan earthquake and tsunami, and then pushed back by some 20% to last week's \$59.88/lb U3O8. As a furious amount of panicked selling gives way to much thinner and more strategic sales, that intense volatility looks like it was a temporary phenomenon.

This shift could be seen most dramatically with Deutsche Bank, which sold some 100,000 lbs U3O8 last week within a day of issuing its Wednesday RFQ (sources say it most likely went for under \$60/lb, but this was not confirmed) and then immediately issued another. But the Thursday RFQ for 100,000 lbs was directed toward "utilities only" and offered Australian-origin material for delivery in December 2016. Market sources were uniformly baffled by the thinking behind this marketing strategy, but it does appear to be a far cry from the desperate selling weeks beforehand.

"Our feeling is that once it [the spot price] made the recovery from the Fukushima factor, it'd trade between \$55/lb and \$65/lb," said one producer. "We don't see it going to \$45/lb." This analysis was generally shared by buyers and traders alike; the spot price took a major hit from the Fukushima crisis, but the impact has mainly been absorbed (though one noted that the crisis is of course far from over).

A big question mark remains Japan's embattled Tepco, where the management has had little opportunity to figure out its uranium procurement (or leasing, or sales) strategy for the future. While multiple producers continue to claim that Tepco has limited inventories, this is far from clear, and there remains the possibility of a significant supply overhang from Tepco's inventories for Fukushima Daiichi and even Daini.

The conversion and enrichment markets have so far felt very little impact from the Japanese crisis. Most of the financial players who were desperate to sell material in the first days after the crisis were holding inventories of U3O8. While there was talk of several UF6 deals over the past week, they

were sold at only a small discount to the published price. NIW is accordingly shifting its March conversion price to a range of \$11/kgU to \$12/kgU, and maintaining its enrichment price in the range of \$154/SWU to \$155/SWU. As the uranium spot price was highly volatile in March, NIW is giving a range of \$50/lb U3O8 to \$67/lb.

Areva's Flat Sales

In a bit of unfortunate timing, Areva last week released its 2010 Reference Document — its comprehensive annual overview of all its business segments and its long-term strategy. "The nuclear renaissance is gaining momentum worldwide," said the Paris-based nuclear giant, and Areva intends to "not only support market growth" in the front end, but "expand its business."

Since Fukushima, of course, this appears less likely. Indeed, Areva reported that the crisis has "profoundly changed the environment in which this financial outlook was established," meaning that the forecast in its annual results is now "no longer relevant. Accordingly, AREVA has undertaken to review the impact of these events on its operations, and consequently on that outlook."

While the outlook is uncertain, Areva's 2010 results are similarly unclear. The uranium producer reported 2010 marketable production of 8,341 tU (roughly 21.683 million lbs U3O8) at an average realized price of \$40.6/lb U3O8 (up 5% on 2009), but down 3.3% from the previous year's production. Areva said this was because as of last year, "Sopamin markets its own share of production directly to its final customers," referring to Niger's state-owned marketer that has a share in Areva's Somair subsidiary operating the Arlit mine.

This came as something of a surprise to one of Sopamin's head executives, who confirmed to NIW that the company has been directly marketing its equity production in the Somair mine since 2007. In 2010 Sopamin marketed just over 2.5 million lbs U3O8 (Arlit's production was 6.9 million lbs). While some of this went toward long-term contracts with utilities such as Exelon, some was sold in small spot sales throughout the year. ☼

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URANIUM PRICE PANEL

For the week ended April 1, 2011

Weekly Spot Market Prices

		Apr.	Mar.					Feb.				Jan.			
	Change	4	28	21	14	7	28	22	14	7	31	24	17	10	
Price (\$/lb U3O8)	-1.26	58.62	59.88	49.80	67.30	66.71	67.38	67.70	72.41	72.48	69.54	68.18	66.00	64.18	
Total Assessments	3.00	14.00	11.00	15.00	14.00	15.00	15.00	14.00	16.00	14.00	18.00	15.00	16.00	15.00	
% within 1 StDev	-10.39	71.43	81.82	53.33	92.86	86.67	93.33	85.71	87.50	92.86	83.33	86.67	75.00	93.33	
Low (\$/lb U3O8)	2.00	58.00	56.00	49.00	66.00	64.50	66.00	65.00	71.50	72.00	68.00	66.00	65.00	62.00	
High (\$/lb U3O8)	-2.00	60.00	62.00	51.00	68.00	68.00	68.00	70.00	74.00	73.00	72.00	70.00	67.50	66.25	
Variability*	-0.13	0.00	0.13	0.20	0.05	0.17	0.21	0.20	0.29	0.00	0.75	0.89	0.50	0.25	

The Uranium Price Panel (UPP) represents the average price assessment reported by active spot market participants for a transaction of 100,000 lbs of U3O8 by book transfer on the date given. In the UPP, participants are assigned a market position of seller, buyer or intermediate. Each week Energy Intelligence eliminates assessments that are statistical outliers, and double-checks the market position of intermediates. It then uses random elimination to maintain an equal number of buyer and seller assessments in the final average. "Variability" represents the absolute range of conceivable final averages resulting from this random elimination. "High" and "Low" assessments represent the extremes of the non-eliminated market assessments. For a detailed explanation of the price panel methodology, see www.energyintel.com.

JAPAN

The Battle Continues

With their president, Masataka Shimizu, hospitalized reportedly for hypertension and dizziness, Tepco's workers battling the nuclear disaster at Fukushima Daiichi face a deadly dilemma. As the water-pumping operations continue in an effort to keep the reactors and spent fuel cool, contaminated water is leaking out into other spaces — and, crucially now, into the Pacific.

The existence of highly radioactive pools of water in the turbine buildings and in tunnels connecting them to the main building are impeding efforts to revive the damaged on-site cooling system. "We have to find a way out of these contradictory missions," said Hidehiko Nishiyama, deputy director of the Nuclear Industrial Safety Agency (Nisa).

Workers struggled over the weekend to plug a large crack discovered Saturday in a six-foot-deep pit next to the seawater intake pipes at the Unit 2 reactor, according to the New York Times, which reported that more than 120 pounds of sawdust, three garbage bags full of shredded newspaper and about nine pounds of a polymeric powder (which officials said absorb 50 times its volume of water) were used to try to plug the apparent source of water.

The newspaper said experts estimated that the water was escaping the pit at a rate of seven tons per hour and contains one million becquerels per liter of iodine 131 — about 10,000 times levels normally found in a nuclear power plant. "There is a steady stream of water from the pit," Nishiyama said, adding that workers would continue to "observe and evaluate" the situation.

Chairman Tsunehisa Katsumata has assumed Shimizu's role in leading efforts to bring the crisis under control — and as the public face of the besieged utility. With Shimizu out of action, it fell to Katsumata to hold a press conference Tuesday where he announced plans to scrap Units 1-4 of the stricken plant. That has been preordained since the injection of seawater soon after the crisis began. Surprisingly there was no mention of Units 5-6, but Chief Cabinet Secretary Yukio Edano has flatly stated they will be closed.

Shimizu has rarely appeared in public since attending a news conference on Mar. 13, two days after the earthquake and ensuing tsunami battered northeastern Japan and crippled the Daiichi plant in Fukushima Prefecture. He reportedly fell sick three days later and failed for a number of days after that to man a liaison office set up to work with the government on the nuclear crisis.

"We apologize for causing the public anxiety, worry and trouble due to the explosions at reactor buildings and the release of radioactive materials," Katsumata said at a hastily called news conference at the company's head office in Tokyo, according to Kyodo News. He told reporters that Shimizu would soon return to work and resume the lead role in handling the crisis. "Our greatest responsibility," he said, evidently referring to both he and Shimizu, "is to put everything into bringing the current situation to an end and under control."

A Shift in Focus

A week ago the government and utility had hoped that the main story would be the restoration of the plant's cooling system. By now workers would have managed to hook all four of the badly damaged plants to outside AC power to run the pumps. It would still have taken some doing to make sure that all of the electrical components such as circuit breakers were working properly.

Workers did manage to restore the lighting in the control rooms, although the immediate value of this was uncertain since they cannot at the moment connect the outside cables to the reactor's control systems and it is uncertain whether the gauges and instruments are working properly.

Then on Mar. 24, three workers wading through the turbine building were exposed to unexpectedly high levels of radiation, leaving burns on their legs. They were transferred to the National Institute of Radiological Sciences in Chiba prefecture near Tokyo for treatment and released four days later.

Since then the entire focus has shifted away from electrical hookup to how to drain these stagnant pools without contaminating anything else. If the efforts to bring in outside power have not ground to a halt, they have been put on the back burner, against the imperative of eliminating the pools. Some of the contaminated water has been pumped into the tanks that held condenser water, but these are filling up. The government is mulling building more facilities for storing contaminated water inside the plant.

The source of the contaminated water is obviously coming from somewhere in the reactor containment vessels, but exactly how is either not known or has not yet been revealed. On Mar. 30, Nisa said that air might be leaking from Units 2 and 3 because data shows low pressure in the vessels, but that there had been no indication of cracks and holes.

Radiation readings from the contaminated water in the turbine building are hovering around 1,000 mSieveverts/hr, which is four times the maximum exposure for nuclear plant workers even under the expanded health limitations. Iodine 131 exceeding statutory limits by 4,000 times and cesium 137 at 527 times normal was found in seawater taken 1,080 feet away from the plant, according to the New York Times.

The discovery of trace elements of plutonium was detected from the soil of the plant site on Mar. 28. That might suggest it was coming from the core, either from the regular over-heated fuel rods or the MOX fuel loaded last summer into Unit 3. Government spokesmen have been tiptoeing around the notion that the contaminated water is evidence of a complete core meltdown. Nishiyama said, "The discovery of the plutonium suggests a certain damage to the fuel rods." Other sources go as far as to concede a "partial meltdown" of one or more of the cores.

"The reactor buildings blew up, the condition of the safety equipment inside is unknown, the buildings are inaccessible because of the radiation levels and the condition of the reactor vessels, the cores and the spent fuel pools won't be known until they get access," notes a former operations man-

ager of a US-based General Electric Mark 1 BWR, similar to Fukushima's Units 1-5.

"In addition, the pressure and temperature readings are suspect because the instrument racks are in the reactor buildings and were likely damaged in the explosions. What they have is a pile of highly radioactive junk that they are trying to keep cool with cobbled up systems of pumps and hoses and not really understanding where the water is going ... other [than] that things (based on the radiation readings) don't appear to be getting any worse. The operative word is 'appear.'" (See pictures.)

Another question is how water got into the main turbine condenser and the tunnels in the turbine building. "There is apparently a breach between the reactor building and the turbine building but who knows where? It could be in a dozen different locations," the expert said. "They seem to have things under control," said the former reactor operator. "Things don't seem to be getting worse but things don't seem to be getting better either."

Feed and Bleed

Indeed, as battalions of firefighters, riot police and members of the Self-Defence Force assist Tepco workers in an effort to save the plant from multiple complete meltdowns, for the time being they have no real choice but to continue to "feed and bleed." There is no plan for bringing the plants to a stable condition. "We cannot help but put the priority on the work to stop the reactor [cores] from boiling dry," said Nishiyama. The immediate tasks remain: pumping water into the reactor cores and some of the spent fuel pools; trying to contain and remove the contaminated water and attempting to rebuild the on-site cooling systems so that they can eventually take over.

On Thursday, Mar. 31, technicians using robots began to spray a sticky synthetic resin produced by Kurita Water Resources on the reactor building walls. Called Kuricoat C-720 Green, it is a product usually used to prevent dust and sand from being blown off reclaimed land. The idea is to try to limit the spread of radiation and allow work to resume on restoring off-site power.

Meanwhile, Tepco is struggling to come up with ideas not just for bringing the plants under control but, over the long term, decommissioning or entombing them. One idea is to encase the reactors in some kind of radiation-retardant fabric shroud; also there is talk of pumping some of the contaminated water into small floating tankers.

Last week Areva president Anne Lauvergeon arrived in Japan with five experts to help in the recovery effort. French President Nicolas Sarkozy also made a quick trip to Tokyo to lend moral support to Japan — one nuclear power nation to another, it would seem. Sarkozy and Prime Minister Naoto Kan discussed possible global nuclear safety standards.

But the recovery effort needs workers as well as experts, grunts as well as generals. Around 500 to 600 plant technicians have been working around the clock ever since the disaster erupted on Mar. 11 and they are getting burned out in more ways than one. Meanwhile, the bodies of two workers aged 21

and 24, who had been listed as missing since the start, were found in the turbine building connected to Unit 4. Tepco said they died on Mar. 11 around 4 pm after the tsunami struck. "It pains me that these two young workers were trying to protect the power plant," Katsumata said in a statement.

Workers operate from the plant headquarters building, hardened against earthquakes but not necessarily radiation, about 300 meters from the damaged reactors. The headquarters has been turned into a makeshift dormitory with mats or chairs to sleep in. The workers exist mostly on rice balls, and return to the damaged and dangerous reactors each day. ☼

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Fukushima Crisis Leaves Air, Water, Soil and People Contaminated

Work to bring the Fukushima Daiichi reactors under control was stalled last week by high levels of radiation found in water on the site. Meanwhile, contamination is turning up in sea water, drinking water, soil at and around the plant — including high levels in one town far outside the evacuation area — and food.

Tepco-reported dose rates at the main gate of the Fukushima Daiichi plant have more or less stabilized, with readings in the 115-123 microsievert per hour range Monday evening, compared to 118-127 microsieverts per hour at the same time a week earlier. However, Tepco has started reporting dose rates at the "main building" of the Daiichi plant, which were significantly higher, ranging from 900-940 microsieverts per hour on Friday, and 750-810 on Monday evening. (It is not clear where this building is located relative to the reactors).

Nuclear plant workers in Japan are normally limited to a dose of 50,000 microsieverts (50 millisieverts) per year, which rises to 100,000 microsieverts in case of emergency. But Japan's Health, Labor and Welfare Ministry early in the crisis raised that limit to 250,000 microsieverts. By Friday, 21 workers had been exposed to more than 100 millisieverts, including three who had been exposed to more than 170 millisieverts while laying cables in the turbine building of Unit 3 on Mar. 24. Those three workers were released from the hospital on Mar. 28.

With doses running high at the plant, Tepco has been forced to rotate workers in and out quickly. Reuters reported last week that the company is recruiting "radiation jumpers" to work shifts at the site for \$5,000 per day. Japan's Nuclear and Industrial Safety Administration (Nisa) issued a warning to Tepco early last week after it found the company did not have enough dosimeters for all the workers on the site, Japan's Kyodo News reported, but Tepco had apparently found another 420 dosimeters by Thursday, and said it had resolved the problem.

Higher Cs-137 Levels Than Chernobyl?

Radioactive nuclides have also moved away from the site, drifting through the air to settle on the ground far from the

site. The International Atomic Energy Agency (IAEA) since Mar. 23 has been monitoring gamma dose rates "in all prefectures continuously," and finds that "dose rates in the 45 prefectures have decreased." The IAEA took measurements Monday at seven locations at distances of 30-41 km south and southwest of the Fukushima Daiichi plant and found dose rates ranging from 0.7 to 12.5 microsieverts per hour.

However, not all the news has been good. The IAEA also reported last week that levels of Cs-137 in Iitate village, which is outside the 20 km mandatory evacuation zone, exceeded its criteria for evacuation. Soil samples at Iitate, about 40 km northwest of Fukushima Daiichi, showed 163,000 Bq/kg Cs-137 Mar. 20, according to Japan's Ministry of Education Culture, Sports, Science and Technology (MEXT). This was widely reported as being higher than the level of Cs-137 contamination that triggered mandatory relocation by the Soviet government after Chernobyl.

The Union of Concerned Scientists (UCS) reported that the Chernobyl relocation limit was 1.48 megabecquerels (mBq) per square meter. MEXT reported its data in Bq/kg; to convert that data to Bq/sq meter, it would be necessary to know the soil density and the sample depth, which are not given in the MEXT data. However, the IAEA reports that the highest level of Cs-137 deposition in the general area of Iitate village, northwest of the Daiichi plant was 3.7 mBq/sq meter, more than twice what the UCS says was the Chernobyl relocation limit.

Whatever the relocation limit at Chernobyl, the fact is the IAEA reported that the Mar. 20 readings meant "operational criteria for evacuation" were exceeded in Iitate. The IAEA said in a note Wednesday, "We advised the counterpart to carefully assess the situation. They indicated they are already assessing." MEXT reported other high readings at Iitate, too, including 2.87 million Bq/kg in a sample of weeds Mar. 26. By Apr. 2, the level of Cs-137 in soil in Iitate had sunk to 61,900 Bq/kg — one-third its Mar. 20 level.

In addition to the Cs-137, there have been reports that soil at the Fukushima Daiichi site has been contaminated with plutonium. On Mar. 28, Tepco reported that it collected samples on Mar. 21 and 22 at five locations on-site, and found plutonium-238, -239, and -240. The plutonium in at least two samples may have been the direct result of the Fukushima accident, according to Tepco. However, the density was equivalent to the fallout observed in Japan following an atmospheric nuclear test in the past, and poses no major impact on human health, according to Tepco.

Authorities have been monitoring the population in the prefecture surrounding the plant for radiation exposure. In Fukushima Prefecture, Nisa reported that as of Mar. 28, 102,342 people had been screened, and 101 were above 100,000 counts per minute (cpm), but when measured without clothes, their counts decreased to 100,000 cpm or below, "and there was no case which affects health."

Nisa also continues to ban the shipment of some foods from Fukushima prefecture, including spinach, broccoli, cabbage, cauliflower, parsley and raw milk. The New York Times also reported Apr. 1 that radiation above the acceptable level had

been found in beef from the area, and was being retested for confirmation. But Cabinet Secretary Yukio Edano reportedly said "the radiation is not of a level sufficient to be harmful to human health if someone eats it once or twice."

Seawater Contamination

Nisa reported last week that a nuclide analysis around the Southern Water Discharge Canal at Daiichi on Mar. 26 showed iodine-131 levels 1,851 times higher than the limit, and 3,355 times the limit on Mar. 29. The IAEA reported Monday that Tepco had identified a possible leakage path from the turbine building of Unit 2 to the sea via a series of trenches and tunnels used to provide power to the seawater intake pumps and supply service water to the reactor and turbine buildings (p3). The company tried unsuccessfully on Apr. 2 and 3 to stop the leak.

The Kuroshio Current will likely take most of the contamination out northeast up the coast and then out into the northern Pacific. The levels get lower further offshore, because of dilution, according to the IAEA. It reported Mar. 30 that "Concentration data offshore reported for the past week show a quite heterogeneous distribution as expected, both on the surface and deep layers with general decreasing time trend. It can be expected that, in the absence of additional releases, the levels measured at the stations 30 km offshore will continue to decrease significantly."

On Monday, however, Tepco announced that it planned to release more than 10,000 tons of low-level radioactive water directly into the ocean. To bring the reactors under control, the company needs to pump out highly radioactive water from the turbine building at Unit 2. But its Central Radioactive Waste Disposal Facility is already quite full. The solution: Dump the low-level radioactive water in the Disposal Facility to make room for highly-radioactive water from the turbine building. The company estimates the discharge will result in about a 0.6 millisievert annual dose for adults, "if they eat adjacent fish and seaweeds every day." That's roughly one-quarter of the worldwide average annual background radiation dose. ☼

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How Will Tepco Pay for Fukushima?

The Fukushima disaster is big enough to cripple even Tepco, one of Japan's largest companies with revenues of roughly \$60 billion last year, but the growing consensus seems to be that it is too big to fail. So Japan's government will likely step in and help Tepco, although it is not yet clear how: Options are said to range from support from the Bank of Japan to full nationalization.

Tepco and Tohoku, a company with revenues of about \$18 billion last year that was also hit hard on Mar. 11, together supply power to about 40% of Japan's electricity consumers. That group of customers produces about 45% of Japan's GDP, according to Paul Scalise, a nonresident

fellow at Temple University's campus in Japan and a former financial analyst.

Maintaining operations at both these utilities is not just a matter of keeping the lights on in Tokyo, but of keeping people working and factories running. If Tepco and Tohoku do not recover somehow, Japan's economy will not, either.

Since the crisis at the Fukushima Daiichi plant is not yet over, its full costs cannot be known. But it is possible to get a sense of their scale by looking at three major types of expenses Tepco will face in addition to the costs associated with trying to bring the plant under control: the business losses associated with having more than 18 gigawatts of generating capacity off line; third-party liability for the damage caused by the crisis; and the decommissioning or entombment of at least four reactors (p3).

The Damage

Tepco's business losses may reach \$20 billion over the next year. A 6.6-magnitude earthquake knocked out Tepco's 8 GW Kashiwazaki-Kariwa plant Jul. 16, 2007. The company's losses for the following fiscal year, mostly from the cost of buying fuel to replace that lost nuclear capacity, was 649 billion yen (\$7.8 billion). Three of the plant's seven reactors remain off line, and it took Tepco until late 2010 to get back in the black (NIW Dec.13,p7).

If that were not enough, Tepco is probably also going to be held responsible for billions of dollars in costs and damages created by the crisis at Fukushima Daiichi. The includes everything from costs associated with evacuating people around the plant, to losses suffered by farmers who can no longer sell their spinach because of radionuclide contamination, to future medical expenses. Under Japanese law, all liability for a nuclear accident is channeled to its operator — in this case, Tepco.

In the case of a grave natural disaster of an exceptional character, or an insurrection, Tepco would be released from these liabilities. But signals coming out of Tokyo suggest the government is not inclined to allow this to happen. Officials seem to think that the disaster clause would more appropriately apply if Daiichi had been hit by a meteor; earthquakes and tsunamis are not that exceptional in Japan. "We can certainly assume that Tepco will be obligated to compensate after this," Prime Minister Naoto Kan told reporters last week. However, Tepco will probably contest claims in court.

Assuming Tepco does not prevail in any legal challenges, the company has a 120 billion yen (\$1.4 billion) insurance policy to cover nuclear accidents, but it does not cover earthquakes or tsunamis. However, it also pays a fee to the Japanese government for a 120 billion yen indemnity policy, which covers accidents involving earthquakes and tsunamis. Everything over that amount would come out of Tepco's pockets, according to Omer Brown, a US attorney who specializes in international nuclear liability.

Bank of America-Merrill Lynch has estimated that Tepco could face compensation claims ranging from 1 trillion yen (\$11.8 billion) if the crisis is resolved within two months, to

11 trillion yen (\$131 billion) if it takes two years to resolve. But Brown says it is far too early to start guessing at that sort of thing before the crisis has even been resolved. "There's no way to know what the amount will be," he told NIW. "It's kind of irresponsible to even speculate about amounts."

On top of absorbing the business losses and paying the damages, Tepco will also have to pay decontamination and decommissioning costs. Fukushima Daiichi Units 1-4 will be permanently shuttered, according to the latest government pronouncements, and it's unlikely Units 5 and 6 will be brought back on line.

After Three Mile Island's Unit 2 in Pennsylvania partially melted down in 1979, it took 12 years and \$973 million to decontaminate it. The US Nuclear Regulatory Commission (NRC) estimates that it will cost another \$836 million to decommission the reactor, which the owner plans to do when it shuts down and decommissions neighboring Unit 1. So that is about \$1.8 billion to clean up and decommission a single reactor.

The costs rise, of course, with the severity of the accident. The cleanup of Ukraine's Chernobyl site continues, and its total costs are unknown. As late as 2005, 5%-7% of Ukraine's government spending each year is still devoted to Chernobyl-related benefits and programs, according to the United Nations Chernobyl Forum. Next door, Belarus, between 1991 and 2003, spent an estimated \$13 billion on Chernobyl-related costs.

Tepco has only 510 billion yen (\$6.1 billion) in reserve set aside for decommissioning its 17 reactors, according to its fiscal-year 2010 annual report. That is not enough to cover the probable costs associated with shutting down the Fukushima site.

Paying the Bill

Tepco has already turned to the big Japanese banks, last week raising up to 2 trillion yen (\$24.7 billion) from Sumitomo Mitsui Bank, Mizuho Corporate Bank and Bank of Tokyo Mitsubishi. It could also try to raise additional money from its keiretsu — a group of associated companies, including its supply chain and the banks it usually works with. But those companies need to worry about their bottom lines, too, so they probably will not be able to give as much as Tepco will need.

So Tepco is clearly planning on support from the government. "Given reconstruction costs, including LNG and other fuel costs, the situation is such that no matter how much we have, it won't be enough," Tepco Chairman Tsunehisa Katsumata said last week, according to the Financial Times. "We will discuss the matter with the government and make efforts to ensure we do not run out of funds."

The US-based ratings agency Moody's believes the government will respond to this plea. "Moody's believes it is likely the government will consider that TEPCO's ongoing viability is critical to the reliability and integrity of the power system in the Tokyo area and that it will continue to recognize the broader financial implications of allowing a major company like TEPCO to collapse," according to a Moody's note.

There is some talk of Tepco issuing additional stock, which the government would buy, injecting additional capital into the

company. But this would further devalue Tepco's already severely devalued stock, and there is pressure from big pension funds and other institutional investors that hold Tepco stock to avoid that, Scalise said. Perhaps more likely is a bond issue. "But if there's a fear the company's going to go bust, who's going to buy them? The Bank of Japan," Scalise says.

There has also been talk of nationalizing and delisting the giant utility. Reuters reported that National Strategy Minister Koichiro Gemba said last week that imposing state management is one option the government is considering. However, chief government spokesman Yukio Edano said no government entity was studying any plan to nationalize Tepco, according to press reports. Prime Minister Naoto Kan has said he would like to see Tepco continue as a private company. ☼

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WASTE

Fukushima Increases Support For Moving Spent Fuel to Casks

As Tepco works to bring its earthquake and tsunami-stricken Fukushima Daiichi reactors under control, one of its main concerns has been keeping the spent fuel, stored in pools in the reactor buildings, cool. Meanwhile, spent fuel stored in dry casks at the site has not caused problems. This has given new impetus to long-standing calls to transfer spent fuel from wet to dry storage at reactors around the world.

Rosatom chief Sergei Kiriyyenko earlier this month suggested that Russia may soon start moving more aggressively to make the shift from pools to casks (NIW Mar.28,p12). And, at Congressional hearings on Fukushima last week in Washington, senators and witnesses suggested they would like the US to do so too.

"I truly believe we must begin to rethink how we manage spent fuel," said Sen. Diane Feinstein, a California Democrat, while chairing a Senate Committee on Appropriations subcommittee hearing Wednesday. "Reports out of Japan indicate there were no problems with the dry casks at Daiichi. To me, that suggests we should at least consider a policy that would encourage quicker movement of spent fuel to dry-cask storage."

Spent fuel spends approximately five to six years cooling in pools before it is transferred to dry casks, according to Dave Lochbaum, the nuclear safety project director for the Washington-based Union of Concerned Scientists. "We've utterly failed to manage the risk from irradiated fuel stored at our nuclear power plants," he told Feinstein's subcommittee.

"I think, as a result of Fukushima, we need to take a real hard look at how we manage spent fuel," Nuclear Energy Institute (NEI) Chief Nuclear Officer Tony Pietrangolo told the Senate Energy and Natural Resources Committee during another hearing Tuesday. The NEI would like to see spent fuel moved from pools at reactor sites to centralized interim dry-cask storage facilities, while a permanent solution is in the works, NEI spokesman Tom Kauffman later told Nuclear Intelligence Weekly.

More Than Words Needed

Despite this general agreement that moving spent fuel to dry casks would be a good thing, the factors that have led the operators of the world's biggest fleet of nuclear reactors to leave their spent fuel in densely packed on-site pools have not changed.

The first problem is that there is really no place to put the fuel except the reactor sites. The US government signed contracts with every nuclear plant operator in the country, promising to take their spent fuel off their hands and put it in a repository starting in 1998. But the government has no repository, and has not yet taken any spent fuel. President Obama's Blue Ribbon Commission on America's Nuclear Future, which is working on that problem, is due to release its interim report later this year and its final report in early 2012 (NIW Feb.1,p4).

Since the government has no plan, the utilities do not know what they should be doing: They do not know whether they will need to store the material for decades or centuries. "It's difficult to make a decision on how best to deal with spent fuel on-site, when the plan keeps shifting from year to year," Lochbaum said.

A second issue is that there is no incentive for the nuclear operators to move the fuel out of the pools until they run out of room, because the US Nuclear Regulatory Commission (NRC) has repeatedly declared the pools safe. As recently as last year, the NRC reaffirmed its "waste confidence" decision, maintaining that fuel could safely remain in on-site pools for up to 100 years (NIW Aug.23,p8). The commission is now studying whether fuel could safely be stored on-site for even longer.

This is the reason the NEI's Kauffman gave for utilities leaving so much spent fuel in pools. "This is not driven by money," he said. "The pools are safe."

However, it is undeniable that if the utilities wanted to move the fuel out of the densely packed pools to other facilities on their sites, the cost would be very high. Building additional spent-fuel pools on-site would be prohibitively expensive and complicated, Kauffman said. And the cost of transferring all the spent fuel in the country that is cool enough into dry casks, would be in the billions of dollars.

The Costs

To date, 55 of America's 65 nuclear plants have built dry-cask storage facilities, according to Kauffman. Of the 65,200 metric tons of spent fuel in the US, 15,600 metric tons (24%) are in dry casks. Utilities have paid for these facilities with money from the US Treasury, won in a series of successful lawsuits against the US government for not fulfilling its obligation to start taking spent fuel in 1998, Kauffman said (NIW Jan.19,p7).

Moving all the spent fuel in the US from pools to casks would, in 2003, have cost between \$3.5 billion and \$7 billion, according to an article published that year in the journal *Science and Global Security* by Robert Alvarez of Washington's Institute for Policy Studies, with co-authors including Allison Macfarlane, now serving on Obama's Blue Ribbon Commission, Ed Lyman of the Union of

Concerned Scientists, and Princeton University's Frank von Hippel. But the costs of not doing so could also be high, the paper warned.

"It has been known for more than two decades that, in case of a loss of water in the pool, convective air cooling would be relatively inefficient in such a 'dense-packed' pool," Alvarez and his co-authors wrote. "Spent fuel recently discharged from a reactor could heat up relatively rapidly to temperatures at which the zircaloy fuel cladding could catch fire and the fuel's volatile fission products ... would be released. The fire could well spread to older spent fuel."

The spent-fuel pool at Fukushima Daiichi's Unit 4, which holds a full core pulled from the reactor in November, apparently heated up enough that the cladding started oxidizing, creating hydrogen, which exploded and blew holes in the walls of the surrounding building (NIW Mar.21,p4). "The problem we were talking about is no longer an abstraction," Alvarez told NIW Thursday.

The loss of off-site power at a US reactor could have even worse consequences in terms of spent-fuel pools than it has had at Fukushima Daiichi. The pools in the reactor buildings at Daiichi are 21%-71% full, but many of the pools at US reactors are completely full. Still, full or not, NRC Chairman Gregory Jaczko told Feinstein's subcommittee Wednesday that wet storage is as safe as dry storage.

The events in Fukushima may be enough of a jolt to move the NRC or Congress to break the decades-old stalemate over what to do with spent fuel in the US. The NRC will review US nuclear plant safety based on lessons learned from Fukushima and Jaczko told Feinstein's subcommittee last week that the wet versus dry storage issue will be on the agenda. "This is very much an issue that the NRC is going to take a look at, without a doubt," he said.

And it is always possible Congress will recommend creating one or more sites for temporary centralized dry-cask storage facilities — perhaps following a recommendation from the Blue Ribbon Commission — and change the Nuclear Waste Policy Act to allow some of the \$24.3 billion utilities have paid into the Nuclear Waste Fund to go toward construction and casks. But the NRC is unlikely to backtrack on its position about the safety of wet storage, and any firm direction from Congress is unlikely or, at the very least, a long way off. ☼

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CHINA Beijing Has Yet to Reduce Nuclear Goal

Press reports indicating that Fukushima has prompted China to cut its 2020 target for nuclear power capacity and build more solar farms appear to be incorrect — or at least premature. Bloomberg reported last week that "the country will reduce its nuclear capacity goal of 80 gigawatts ... The goal for solar-power capacity will increase from the current target of 20 gigawatts." It attributed this to Ren Dongming, who it said was head of renewable energy development at China's National Development Reform Commission (NDRC).

But Ren later told Nuclear Intelligence Weekly he is, in fact, director of the Center for Renewable Energy Development under the Energy Research Institute, which is a consultancy that provides advice, but that is not involved in the decision-making process for China's energy plan. Ren said he was simply giving his personal opinion at a solar power-related conference, guessing what could happen in the future and that his statements were in no way official. "I've not dealt with anyone from NDRC," he said. (Bloomberg later issued a partial correction clarifying Ren's position).

However, the full impact of the situation at Fukushima is still unknown, and it is possible that Beijing may indeed decide to cut back on its nuclear ambitions depending on what happens next in Japan.

So far, however, it seems Fukushima has only slowed China's nuclear energy development to some extent. Chinese Premier Wen Jiabao announced Mar. 16 in a meeting of the State Council, which is responsible for giving final approvals for all new major infrastructure projects, that no approvals for new reactor projects would be issued for up to a year, while a comprehensive safety review is carried out by the National Nuclear Safety Administration (NIW Mar.21,p7).

China has 10.7 GW of operating nuclear capacity, another 31 GW under construction, and 4.3 GW already approved by the State Council for construction, none of which should be affected by Ren's moratorium on new approvals. But there is another 76 GW of potential nuclear capacity that is already part of the national plan that will not receive final approval until the safety review is complete, which could take from six months to a year (NIW Feb.22,p4). ☼

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BRIEFS

CHINA

In a move that will allow China Guangdong Nuclear (CGN) to see its uranium division listed on the Hong Kong stock exchange, the nuclear powerhouse announced today that it hopes to acquire a majority stake in Vital Group Holdings, a company incorporated in the Cayman Islands and listed in Hong Kong that sells pharmaceuticals, food and office space. "After the establishment of our strategic partnership with Vital Group, we will consider diversifying Vital Group's business as well as developing plans and strategies for expanding its sources of income," said Yu Zhiping, the head of CGN subsidiary Uranium Resources, which would be the vehicle for the HK\$384 million (US\$49 million) takeover. Uranium Resources "will look for other investments and treat Vital Group as a platform for uranium investment and trading." Assuming the deal goes through, Vital Group will be a rough equivalent to CNNC International, the Hong Kong-listed subsidiary of CGN competitor (and partial owner) China National Nuclear Corp. (CNNC), which is also involved in non-nuclear activities. CNNC International at this point represents most of CNNC's overseas uranium activities — bringing on production in Niger, and exploring in Mongolia. It is unclear to what extent Shenzhen-based Uranium Resources will transfer its overseas activities — including its potential acquisition of Kalahari Minerals — to the Vital Group.

GERMANY

RWE filed a lawsuit Friday challenging Chancellor Angela Merkel's decision to order the temporary shutdown of seven of the country's 17 reactors, including RWE's Biblis A plant near Frankfurt, in the wake of the Fukushima disaster in Japan. "Since German nuclear power plants comply with all relevant safety requirements, there are no legal grounds for decommissioning them," RWE said. "In taking the legal step of appealing against the decommissioning, RWE is seeking to protect the interests of its shareholders." The government's decision to shut down plants built prior to 1980 was based on a paragraph that allows it to order plant shutdowns when there is the "suspicion of a threat" to their safety that cannot be fully excluded. RWE argues that a nuclear disaster in Japan is not enough to meet that requirement. Analysts have said the four affected utilities are poised to lose around €500 million (\$700 million) as a result of taking their reactors off line for three months, according to several media reports. However, German utility E.ON has said that it would not take the issue to court "despite doubts on its legitimacy."

INDIA

Prime Minister Manmohan Singh says he wants the country's nuclear regulator to be independent. "We will strengthen the Atomic Energy Regulatory Board (AERB) and make it a truly autonomous and independent regulatory authority," Singh said Tuesday, according to UPI, citing Press Trust of India reports. "We will ensure that it is of the highest and the best international standards." Critics have long claimed the AERB cannot be an effective regulator because of its ties to the Department of Atomic Energy. It is unclear how Singh will make the AERB truly independent given its existing close relations to the country's nuclear establishment. With the government determined to proceed with an ambitious newbuild program in the wake of Japan's nuclear disaster, Singh has already ordered a technical review of all safety systems of existing nuclear power plants (NIW Mar. 14, p7). This latest move is another attempt to dampen criticism of nuclear power in the country after Japan.

KAZAKHSTAN

Authorities announced today that Kazakh President Nursultan Nazarbayev won re-election in voting this weekend by some 95.5%, according to The New York Times. Although the results are prelimi-

nary, Nazarbayev's victory in the hastily called elections demonstrates the 70-year-old's intention to keep a firm grip on power in a country he has ruled since it declared independence twenty years ago. Earlier this year Nazarbayev rejected plans to keep himself in power through 2020 without elections, as he looked west toward the anti-authoritarian revolutions taking place in Tunisia and Egypt (NIW Mar. 7, p8). Instead he ordered snap elections that gave no time for opponents to prepare, resulting in the major opposition parties boycotting the election.

NIGER

The China Export-Import Bank will loan 650 million yuan (\$99 million) to fund development of the Azelik uranium project, which is scheduled to bring commercial production on line by the end of the year, Reuters reported from a government statement read on state television last week. "The cabinet met on Thursday and approved the loan agreement between the Export-Import Bank of China worth 650 million yuan," said the statement. "This agreement is for development of uranium from Azelik in Niger." The planned 623 tU/year project is 33% owned by the Niger government, and 37.2% owned by China National Nuclear Corp.'s (CNNC) Hong Kong-listed uranium subsidiary, CNNC International. That company announced in results last week that it is working to identify "more suitable uranium projects of quality," and that it has "commenced its study in extending and deepening the sectors of operations gradually and developing towards the directions of uranium product processing and nuclear energy compliant industries."

UNITED STATES

County supervisors agreed to request a delay of Diablo Canyon's license-renewal efforts until more seismic studies can be carried out. After testimony from nearly 50 people Tuesday, three of five San Luis Obispo county supervisors called on PG&E to voluntarily suspend its license-renewal request. County Supervisor Adam Hill said there was intense concern about PG&E's assurances that the twin-unit plant was safe in the wake of events in Japan. Hill said he would draft a letter for board approval requesting that the utility conduct peer-reviewed seismic studies. Supervisors wrote to the US Nuclear Regulatory Commission a year ago requesting a delay in the license renewal, set to expire in 2024 and 2025.

UNITED STATES

Republican lawmakers on Thursday challenged the Obama administration's decision to halt work on the Yucca Mountain repository in Nevada. A list of questions about the decision was sent from the House Energy and Commerce Committee to Energy Secretary Steven Chu and Nuclear Regulatory Commission (NRC) Chairman Gregory Jaczko. Separately, Jaczko was grilled Thursday by members of the House Appropriations Committee subcommittee that oversees his agency's budget about his move to end a technical review of the site. "I firmly believe that contrary to what your counsel says, you're acting outside the law," Republican Representative Mike Simpson of Idaho told Jaczko during a hearing. "Nobody likes to spend \$12 billion and see it washed down the toilet," he said, adding that he would be looking for ways to use budgetary powers to force the NRC to act. Also, California Republican Darrell Issa, who heads the watchdog committee on Oversight and Government Reform, said he was studying a previously unreleased complete version of the NRC's pending technical review of Yucca obtained last week, over objections from Jaczko, who called the release a "dangerous precedent." Jaczko characterized his actions as "apolitical" and said it was not the commission's job to require the government to move ahead with the project. ☼

ENERGY INTELLIGENCE URANIUM MARKET UPDATE

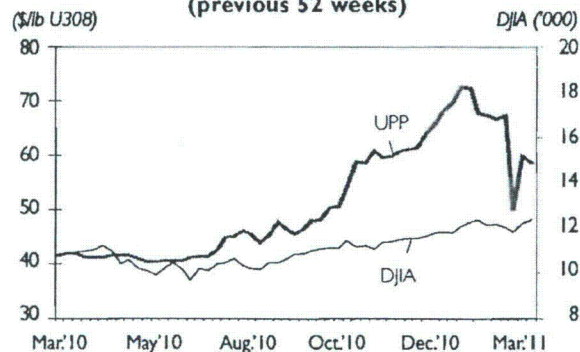
For the week ended April 1, 2011 (All figures as of Friday close unless otherwise indicated)

UPP vs. Solactive Global Uranium Index*
(previous 52 weeks)



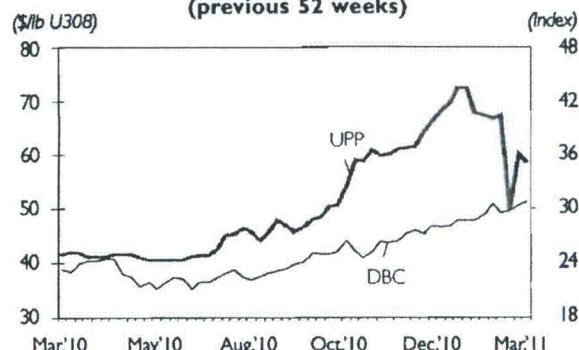
*Solactive Global Uranium Total Return Index, created by Structured Solutions AG, tracks the price movements in shares of companies active in the uranium mining industry. Calculated as a total return index and published in USD, its composition is ordinarily adjusted twice a year.

UPP vs. Dow Jones Industrial Average*
(previous 52 weeks)



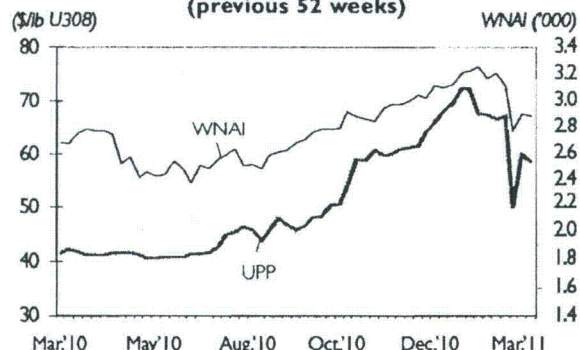
*Roughly two-thirds of the Dow Jones Industrial Average's 30 component companies are manufacturers of industrial and consumer goods. The others represent industries ranging from financial services to entertainment.

UPP vs. PowerShares DB Commodity Index*
(previous 52 weeks)



*The PowerShares DB Commodity Index Tracking Fund is designed to provide investors with a broadly diversified exposure to the returns on the commodities markets. It is based on the Deutsche Bank Liquid Commodity Index, which is composed of futures contracts on 14 of the most heavily traded and important physical commodities.

UPP vs. WNA Nuclear Stock Index*
(previous 52 weeks)



*Maintained by the World Nuclear Association, the World Nuclear Association Nuclear Energy Index includes companies engaged in primary building nuclear power facilities, design and service reactors, operate nuclear reactors, supply nuclear components, technology, and fuel.

Monthly Spot Market Prices

	Change	2011					2010				
		Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sep.	Aug.	Jul.	
Uranium (\$/lb U3O8)											
Low	-17.00	+50.00	+67.00	+61.50	+59.50	+54.00	46.00	45.00	44.00	41.50	
High	-5.50	+67.00	+72.50	+69.50	+61.50	+60.50	50.50	47.00	46.25	43.00	
Conversion (\$/kgU)											
Low	-1.00	+11.00	+12.00	+11.00	+11.00	+11.00	11.00	9.00	10.00	6.00	
High	-1.00	+12.00	+13.00	+12.50	+12.50	+13.00	13.00	13.00	12.50	11.00	
Enrichment (\$/SWU)											
Low	-	+154.00	+154.00	+154.00	+153.00	+153.00	153.00	153.00	153.00	153.00	
High	-	+155.00	+155.00	+155.00	+155.00	+155.00	154.00	154.00	155.00	155.00	

NIW monthly UF₆, SWU and U₃O₈ prices rely on the general consensus of direct market participants and is informed by actual market transactions. This section was previously known as the Nukem Weekly Report and the Nukem Price Bulletin. The methodology for NIW's weekly UPP price is different – more information about the methodology behind that price is available on page two.

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Wert, Leonard

From: Thomas Saporito [(b)(6)] on behalf of Thomas Saporito [thomas@saprodani-associates.com]
Sent: Monday, April 04, 2011 4:51 AM
Subject: Fwd: <<< NEWS: Japan's Nuclear Reactor #1 Lives >>>

A highly-respected nuclear engineer has determined that Unit-1 of the failed nuclear plants in Japan is experiencing intermittent bursts of radioactive neutrons being generated and endangering plant employees who are not aware of the danger. According to the nuclear engineer, the Unit-1 nuclear reactor is being partially turned on-and-off without human intervention caused by sea-water being used for cooling.

[Click here to watch the video recently released...](#)

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Yerokun, Jimi

From: Ogle, Chuck
Sent: Monday, April 04, 2011 5:08 PM
To: Yerokun, Jimi
Subject: FW: Pumping concrete into Japanese fuel pools
Attachments: 20110317105600794.pdf

From: Blamey, Alan
Sent: Friday, March 18, 2011 6:32 AM
To: RST07 Hoc
Cc: RST01 Hoc; Ogle, Chuck; Moorman, James; Yerokun, Jimi; Masters, Anthony
Subject: RE: Pumping concrete into Japanese fuel pools

Chuck, this is the final article we were expecting. Apparently Putzmeister concrete pumps were used at Chernobyl. Items to note in this article is the use of (1) Radiation shielded cabs, (2) remote control pumps and (3) cameras. You may want to forward this information to Bechtel as well.

This completes our scope of work for this strategy. If you need anything else feel free to call.

From: RST07 Hoc
Sent: Thursday, March 17, 2011 8:04 PM
To: Blamey, Alan
Subject: RE: Pumping concrete into Japanese fuel pools

Thanks Alan

I have forwarded this to Bechtel to consider in the development of the plan.

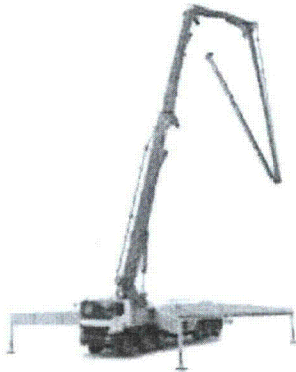
Chuck Norton
NRC RST

From: Blamey, Alan
Sent: Thursday, March 17, 2011 5:14 PM
To: RST07 Hoc; RST01 Hoc
Cc: Masters, Anthony; Ogle, Chuck; Yerokun, Jimi; Moorman, James
Subject: RE: Pumping concrete into Japanese fuel pools

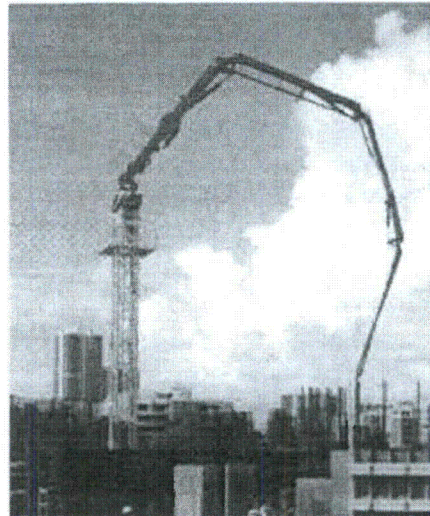
Thanks Chuck, good to hear from you...

We have done some quick research and have the following information.

Based on our review the truck mounted boom pumps can be extended to approximately 230 Feet (about 70 meters). The Stationary Towers can be built to go much higher. These concrete boom pumps can pump water or cement. However, they cannot pump dry sand. It must be a slurry mix. Anthony Masters has contacted two large US manufactures to obtain more details, which are listed below.



Truck Mounted



Stationary

1. Schwing America (888-724-9464), spoke with Doug a regional sales manager (drhiel@schwing.com). He reaffirmed there were no issues pumping water. **If used to pump sand, it would have to be saturated to be flowable.** He suggested using a stationary pump with a vertical mast and affixing a section header on top of the mast to a separate placing boom. He said the stationary pumps have the ability to pump vertically as high as 1800'. They are currently using them to do the 110th floor of the Freedom Bldg in NY. The separate placing boom could articulate out horizontally 39 meters (127 feet). He was going to e-mail some information regarding the maximum pressures and volumes at discharge for pumping water in this type of application. We will forward the information to RST01.HOC@nrc.gov when we receive it.
2. Putzmeister, spoke with Wayne Allen, regional sales manager (817-291-6544), who also confirmed no issues using concrete boom pumps to pump water, but that the sand would have to be flowable. He will also be getting information from engineering regarding the pressure and volumes at discharge for this type of application. He stated he will e-mail me (A. Masters) a couple of "Job Stories" where **they have used their pumps in this type of application and one of which was at Chernobyl.** He stated that the VP of Sales and Marketing, Bill Dwyer, has already been contacting their counterparts in Germany and Japan regarding availability of their equipment. **I spoke with Bill Dwyer (847-404-4592) and confirmed that he has informed his Japanese counterparts that they have two (2) 70 meter (230 feet) boom trucks available for immediate delivery if needed.** He has not received any responses as of today. By immediate, he meant, he could have one ready to ship on Monday and the other next week, because he wanted one of his people to do a quick inspection prior to releasing for shipment. We will forward the information to RST01.HOC@nrc.gov when we receive it.

From: RST07 Hoc
Sent: Thursday, March 17, 2011 2:06 PM
To: Blamey, Alan
Subject: Pumping concrete into Japanese fuel pools

Alan,

I saw a communication from you the other day with suggestions for pumping concrete into the fuel pools in Japan. We are working on this idea as a contingency. If you have worked out any details for this plan please get in touch with the Operations Center 305 816 5100 ask for the RST.

BTW Tim Kolb is with Chuck Casto in Japan.

Chuck Norton

Background

First large boom pump for Chernobyl delivered 20 years ago

In April 2006, the whole world remembers the Chernobyl catastrophe of twenty years ago, when the fourth reactor block of the nuclear power station went out of control: fuel rods overheated and melted down and large quantities of radioactive fission products were released into the atmosphere. Those responsible did not have much time to work out the details of complex, subsequent safeguards. Instead, it was a matter of acting quickly to contain the consequences of the catastrophe – the contamination of enormous areas of land. Putzmeister concrete pumps also played their part in this; their delivery began at the end of June 1986, almost exactly twenty years ago.

Through the dumping of approximately 5,000 t of sand, clay and lead from helicopters in the first weeks after the disaster, the heat escaping from the reactor block was successfully controlled and the dangerous radiation absorbed. The graphite fire was finally extinguished and the escape of radioactive materials was slowed by feeding in nitrogen.

In the early summer of 1986, the department responsible in the Soviet foreign trade ministry and Putzmeister signed a contract

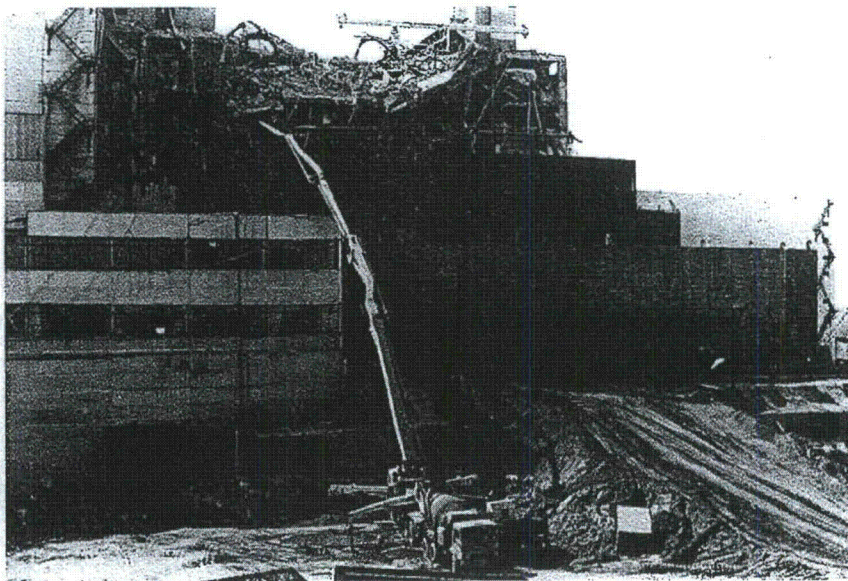


Firstly, truck-mounted concrete pumps were equipped with a lead hood and video control

for the delivery of ten large boom truck-mounted concrete pumps, models M 50-4 and M 52-5, the largest truck-mounted concrete pumps available at the time, with "special equipment". The extras included two adjustable video cameras per machine, mounted on the rear left-hand supporting leg and on the tip of the boom. These were intended for observing the filling of the feeder container and the actual concreting work from a distance. Moreover, it had to be guaranteed that the truck-mounted concrete pump could even be operated from a distance of 600 to 800 m via remote control and by cable radio control. In addition to that, operation and observation should also be possible from the cab. Therefore a monitor has been fitted in place of the passenger's seat.

Special equipment against radiation

The special equipment on four machines included in addition a lead hood (weight approximately 4 t) to protect the cab from radiation. When the lead casing was attached, the driver could only get into the cabin via a hatch specially cut into the roof. Four small, slitted windows enabled viewing towards the front and to the side. Here too, radiation protection was provided by a lead glazing; the sensitive video camera optics were similarly protected. The first two machines left the Putzmeister works at the end of June. Prompt delivery was made possible by the readiness of several customers to provide machines which were really intended for themselves and the 5-axle chassis they had ordered. There were many Putzmeister employees who worked late into the night, were available at weekends and postponed their planned annual holidays. The last of this order's large boom concrete pumps were finally handed over in September 1986. Three stationary high pressure concrete pumps were also delivered.



They had the task – as was learned later – to load some of the truck-mounted concrete pumps via pipelines from a distance and to deliver concrete for a 2.5 m thick protection plate under the reactor block.

Machine operator Baschir is thankful

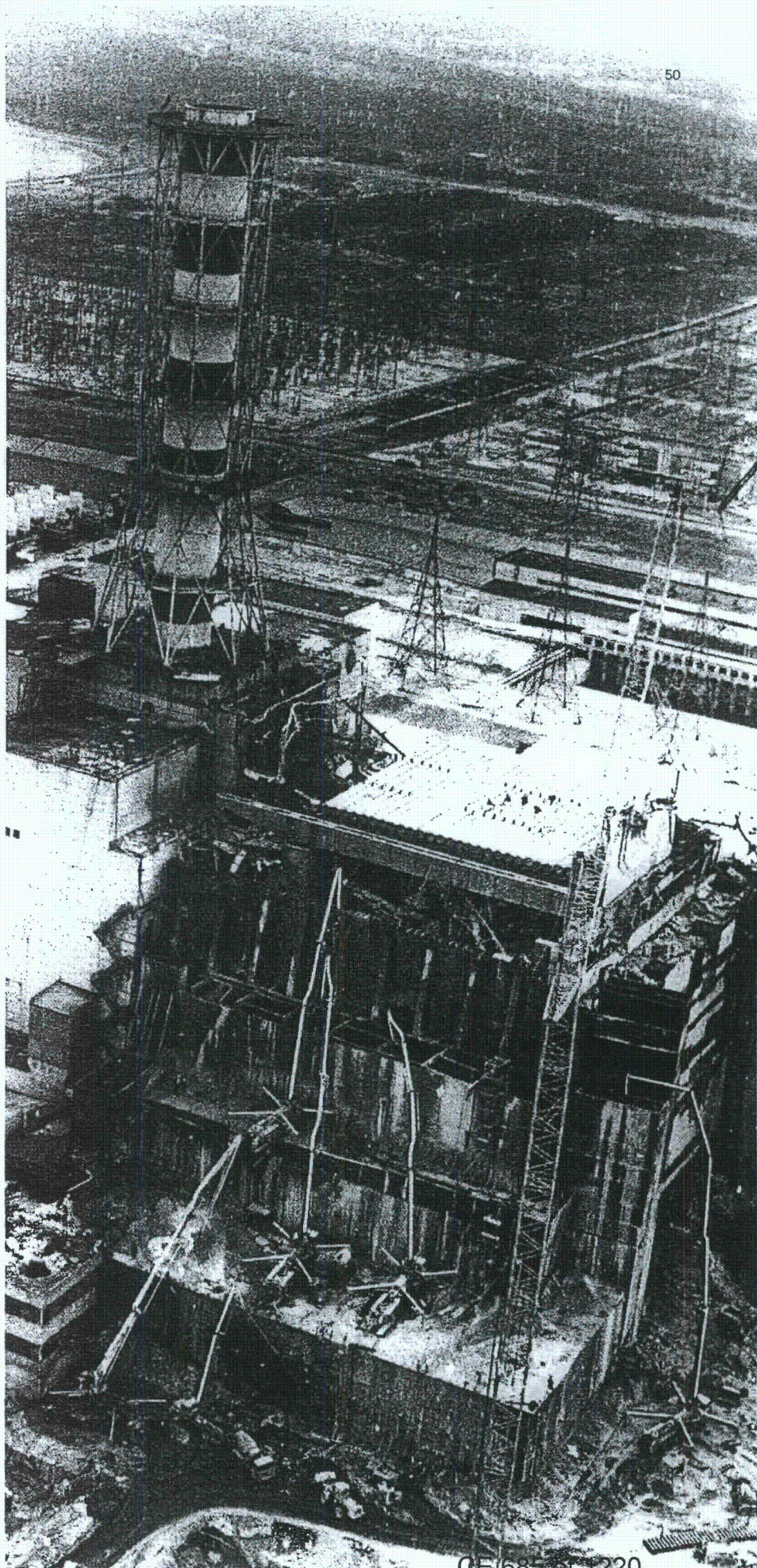
Twenty years later, an e-mail from Haertdinov Baschir, one of the drivers of the large boom concrete pumps in Chernobyl, reached Putzmeister AG. Here is the translation, almost word for word:

“Greetings!!!

Haertdinov Baschir is writing to you. I took part in cleaning up the damage at the Chernobyl nuclear power station. I decided to write this letter of thanks on the occasion of the 20th anniversary of the Chernobyl disaster. I worked as a driver of your truck-mounted concrete pump and delivered concrete into the area of the fourth block of the nuclear power station, in which the disaster occurred. Thanks to your “Putzmeister” technology, we cleaned up this dangerous accident. Your concrete pumps worked non-stop around the clock. They were only switched off to check the oil level in the engine. As confirmation of my words, I am sending you the photos. Once again a big thank you for your technology!!!”

As has since been learned, about twenty experienced machine operators also came with the Putzmeister concrete pumps to Chernobyl. They trained a further 80 drivers in operation of the machines. In the immediate vicinity of the reactor building where the accident occurred, it was only permitted to stay a maximum of two hours. Then the liquidators had to retreat back to a convalescent home about 160 km away.

Since, the concrete shell has got cracks, steel girders are rusting, walls threaten to collapse and rainwater seeps through into the interior. Day-to-day there are still 120 workers (another source speaks of “hundreds”) trying to stabilise the building as far as possible. There are plans for the construction of a “safe shell”. These provide for a gigantic, 100 m tall arched construction, which stretches over 250 m wide. Due to the high level of radiation at the sarcophagus, the arch will be constructed some distance away and towed in parts on Teflon rails over the reactor where the accident occurred. There is talk of the construction work beginning in the autumn of 2006; the “new, secure entombment” could already be finished by 2009.



Yerokun, Jimi

From: Ogle, Chuck
Sent: Monday, April 04, 2011 5:08 PM
To: Yerokun, Jimi
Subject: FW: Pumping concrete into Japanese fuel pools
Attachments: 70M Link; Truck-Mounted Concrete Boom Pumps: Products: Putzmeister Concrete Pumping Products

From: Masters, Anthony
Sent: Thursday, March 17, 2011 5:47 PM
To: Blamey, Alan
Cc: Ogle, Chuck; Yerokun, Jimi; Moorman, James; RST07 Hoc; RST01 Hoc
Subject: RE: Pumping concrete into Japanese fuel pools

Alan,

Attached are the latest e-mails from Mr. Dwyer regarding two booms located here in the States that can be deployed quickly. Also, a pdf file detailing the use of a concrete boom truck used for fire fighting at a recycling plant in Germany. The volumes and pressures in the document are in metric units, but here are some estimated conversions for your ease:

5 bar = 72 psi
8 bar = 116 psi

25 l/min = 6.6 gpm
100 l/min = 26 gpm
200 l/min = 52 gpm
400 l/min = 105.6 gpm

Anthony D. Masters, PE
Acting Branch Chief, Construction Projects Branch 1 (CPB1)
U.S. Nuclear Regulatory Commission
Region II - Atlanta
(404) 997 - 4465 (office phone)
(404) 997 - 4917 (fax)
Anthony.Masters@nrc.gov

From: Blamey, Alan
Sent: Thursday, March 17, 2011 5:14 PM
To: RST07 Hoc; RST01 Hoc
Cc: Masters, Anthony; Ogle, Chuck; Yerokun, Jimi; Moorman, James
Subject: RE: Pumping concrete into Japanese fuel pools

Thanks Chuck, good to hear from you...

We have done some quick research and have the following information.

Based on our review the truck mounted boom pumps can be extended to approximately 230 Feet (about 70 meters). The Stationary Towers can be built to go much higher. These concrete boom pumps can pump water or cement. However, they cannot pump dry sand. It must be a slurry mix. Anthony Masters has contacted two large US manufactures to obtain more details, which are listed below.

Vias, Steven

From: Pelchat, John
Sent: Tuesday, April 05, 2011 7:13 AM
To: Vias, Steven
Subject: RE: FOIA 2011-0147

Good morning. I do not have any such records in my possession, electronic or physical. Take care. . . JP

From: Vias, Steven
Sent: Tuesday, April 05, 2011 7:11 AM
To: Smith, Galen; Chitty, Mark; Subosits, Stephen; Morrell, Regina; Burke, Sherry; Foster, Jennifer; Prince, Robert; Crespo, Manuel; Pelchat, John
Subject: FW: FOIA 2011-0147

Please see below.

From: Cobey, Eugene
Sent: Tuesday, April 05, 2011 7:02 AM
To: Vias, Steven; Calle, Joselito; Sykes, Marvin; Gepford, Heather; McCallie, Karen; Farrell, Karlisa
Subject: FW: FOIA 2011-0147

See below for guidance on subject FOIA request.

Gene

Eugene W. Cobey
Deputy Director, Division of Fuel Facility Inspection
U.S. Nuclear Regulatory Commission, Region II
404-997-4701 (work)

(b)(6) (cell)

From: Coleman, Judy
Sent: Monday, April 04, 2011 4:48 PM
To: R2SR_MANAGERS
Cc: Flynn, Sean; Travick, Vanette
Subject: FOIA 2011-0147

Additional Guidance for FOIA 2011-0147:

The subject FOIA specifically requests "...any and all documentation regarding the ongoing nuclear crisis in Japan, including but not limited to any and all information on the status of the damage to reactors & spent fuel pools the Fukushima Daiichi nuclear plant and the resulting release of radiation..."

The referenced documentation would generally come from the Operations Center, Regional Administrator (RA) or Deputy Regional Administrator (DRA) and as such, the originator of the email is responsible for providing that email to satisfy the FOIA request. The recipients of the email sent to R2Mail or R2_Resident Sites, are not expected to provide a copy of what they received from the RA or DRA. *However if the recipient forwarded that email to another individual or replied to the sender with information relating to the subject request, that email must be surrendered.*

Your staff should review their Outlook "**Sent Items**", "**Inbox**", "**Deleted Items**" and folders as well as any "**Archived**" mailboxes for the period 3/11-24/2011, for any and all emails relating to the ongoing nuclear crisis

in Japan. Your staff should also ensure that they review their Outlook incoming and outgoing mail boxes for the same period for any email received from sources other than the RA or DRA relating to the subject request.

Documentation or emails meeting the above criteria should be printed, placed in an envelope and provided to Vanette Travick by April 13, 2011.

Judy Coleman
Director, Division of Resource Management & Administration
Nuclear Regulatory Commission
Region II
(404) 997-4800(w)

(b)(6)

(c)

Heisserer, Jamie

From: Michel, Eric
Sent: Tuesday, April 05, 2011 7:39 AM
To: Artayet, Alain; Bartleman, John; Blake, Jerome; Failla, David; Harmon, David; Heisserer, Jamie; Steadham, Timothy
Cc: Freeman, Scott
Subject: FW: FOIA 2011-0147

CIB3,

Please let me know what (if any) documentation you've got regarding a recent FOIA from Greenpeace. See details below. Note, we don't need the daily status updates that were sent to you; however if you forwarded that on to someone else or replied to the original sender, that would be included in the FOIA. Again, please read the email below to better inform your search. Due date is this Thursday, April 7. Thanks.

Eric

From: Yerokun, Jimi
Sent: Tuesday, April 05, 2011 7:23 AM
To: Lesser, Mark; Michel, Eric; Jackson, Rahsean
Subject: FW: FOIA 2011-0147

Response to subject FOIA, as described below, is due to DRMA by April 13th. Let me know by Thursday the 7th if there will be any information from your branch.

From: Coleman, Judy
Sent: Monday, April 04, 2011 4:48 PM
To: R2SR_MANAGERS
Cc: Flynn, Sean; Travick, Vanette
Subject: FOIA 2011-0147

Additional Guidance for FOIA 2011-0147:

The subject FOIA specifically requests "...any and all documentation regarding the ongoing nuclear crisis in Japan, including but not limited to any and all information on the status of the damage to reactors & spent fuel pools the Fukushima Daiichi nuclear plant and the resulting release of radiation..."

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Your staff should review their Outlook "**Sent Items**", "**Inbox**", "**Deleted Items**" and folders as well as any "**Archived**" mailboxes for the period 3/11-24/2011, for any and all emails relating to the ongoing nuclear crisis in Japan. Your staff should also ensure that they review their Outlook incoming and outgoing mail boxes for the same period for any email received from sources other than the RA or DRA relating to the subject request.

Documentation or emails meeting the above criteria should be printed, placed in an envelope and provided to Vanette Travick by April 13, 2011.

Judy Coleman

Director, Division of Resource Management & Administration
Nuclear Regulatory Commission
Region II
(404) 997-4800(w)

(b)(6)

(c)

Christensen, Harold

From: Christensen, Harold
Sent: Tuesday, April 05, 2011 8:17 AM
To: R2DRS
Subject: Action Item on FOIA on Fukushima Daiichi event FW: FOIA 2011-0147

All,

Please review the e-mail below, note the highlighted section. Only need documents that added or provided additional information on the event (example if you made a comment on the event in your document). Please let your Branch Chief know if you have or don't have information. Please provide the info to your Branch Chief By April 12. If you have questions please let me know.

Chris

From: Coleman, Judy
Sent: Monday, April 04, 2011 4:48 PM
To: R2SR_MANAGERS
Cc: Flynn, Sean; Travick, Vanette
Subject: FOIA 2011-0147

Additional Guidance for FOIA 2011-0147:

The subject FOIA specifically requests "...any and all documentation regarding the ongoing nuclear crisis in Japan, including but not limited to any and all information on the status of the damage to reactors & spent fuel pools the Fukushima Daiichi nuclear plant and the resulting release of radiation..."

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Your staff should review their Outlook "**Sent Items**", "**Inbox**", "**Deleted Items**" and **folders as well as any "Archived"** mailboxes for the period 3/11-24/2011, for any and all emails relating to the ongoing nuclear crisis in Japan. Your staff should also ensure that they review their Outlook incoming and outgoing mail boxes for the same period for any email received from sources other than the RA or DRA relating to the subject request.

Documentation or emails meeting the above criteria should be printed, placed in an envelope and provided to Vanette Travick by April 13, 2011.

Judy Coleman
Director, Division of Resource Management & Administration
Nuclear Regulatory Commission
Region II
(404) 997-4800(w)

(b)(6)

 (c)

Vias, Steven

From: Gepford, Heather
Sent: Tuesday, April 05, 2011 8:47 AM
To: R2DFFI
Subject: FW: FOIA 2011-0147

Please print out copies of any emails you have sent/received discussing the Japanese event between March 11-24. This does NOT include the daily updates from Vic.

The printed emails (and any other related documents) should be placed in an envelope and taken to Vanette Travick no later than April 13. Please see the guidance below from DRMA.

Thanks,
Heather

From: Cobey, Eugene
Sent: Tuesday, April 05, 2011 7:02 AM
To: Vias, Steven; Calle, Joselito; Sykes, Marvin; Gepford, Heather; McCallie, Karen; Farrell, Karlisa
Subject: FW: FOIA 2011-0147

See below for guidance on subject FOIA request.

Gene

Eugene W. Cobey
Deputy Director, Division of Fuel Facility Inspection
U.S. Nuclear Regulatory Commission, Region II
404-997-4701 (work)

(b)(6)

 cell)

From: Coleman, Judy
Sent: Monday, April 04, 2011 4:48 PM
To: R2SR_MANAGERS
Cc: Flynn, Sean; Travick, Vanette
Subject: FOIA 2011-0147

Additional Guidance for FOIA 2011-0147:

The subject FOIA specifically requests "...any and all documentation regarding the ongoing nuclear crisis in Japan, including but not limited to any and all information on the status of the damage to reactors & spent fuel pools the Fukushima Daiichi nuclear plant and the resulting release of radiation..."

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Documentation or emails meeting the above criteria should be printed, placed in an envelope and provided to Vanette Travick by April 13, 2011.

Judy Coleman
Director, Division of Resource Management & Administration
Nuclear Regulatory Commission
Region II

(404) 997-4800(w)

(b)(6)

(c)

Hartland, David

From: Wyatt Padgett (LES) [wpadgett@nefnm.com]
Sent: Tuesday, April 05, 2011 6:01 PM
To: Hartland, David
Cc: Calle, Joselito; Brandon Hanson (LES)
Subject: RE: response to Japanese earthquake
Attachments: Beyond Design Basis.pdf

Dave,
See attached

Wyatt Padgett
Licensing Manager

LES
P.O. Box 1789
Eunice, NM 88231

Tel: +01 575 394-5257
Mob: (b)(6)
Email: wpadgett@nefnm.com
Web: www.nefnm.com

From: Hartland, David [<mailto:David.Hartland@nrc.gov>]
Sent: Thursday, March 24, 2011 1:13 PM
To: Fogel, Douglas K; Sensue, Terry; Wyatt Padgett (LES); borenm@usec.com; Greeno, Michael; Martin Jr., Thomas A.
Cc: Calle, Joselito
Subject: response to Japanese earthquake

As I'm sure you are aware, the NRC is reviewing what impact a major earthquake would have on the facilities we regulate, including fuel facilities. Up to this point, we have reviewed your licensing documents to determine what your design basis accidents are and what safety features you have available to mitigate such accidents. Thanks to those who have provided information in support of this effort.

We now are looking for some additional information if it exists. In the event that your site encounter an accident (e.g., earthquake, flood, tornado etc) that is beyond what was analyzed, please describe what mitigating actions you have available to cope with such a disaster. These may be described in EIPs for disaster response that I recall seeing at some of the sites. Please respond by early next week.

DISCLAIMER:

This email transmission is confidential Louisiana Energy Services, LLC and intended solely for the person or organization to which it is addressed. If you are not the intended recipient, you must not copy, distribute or disseminate the information or take any action in reliance of it. Any views expressed in this message are those of the individual sender, except where the sender specifically states them to be the views of any organization or employer. If you have received this message in error, do not open any attachment but please notify the sender (above) and delete this message from your system. Please rely on your own virus check, as no responsibility is taken by the sender for any damage arising out of any bug or virus.

Kontz, Craig

From: Ross, Thierry
Sent: Tuesday, April 05, 2011 6:27 PM
To: Kontz, Craig
Subject: ANS Technical Brief: MOX Fuel & Fukushima - FOIA 2011-0147
Attachments: ANS-Technical-Brief-MOX-Fukushima.pdf

FYI

Kontz, Craig

From: Ross, Thierry
Sent: Tuesday, April 05, 2011 6:45 PM
To: Kontz, Craig
Subject: E-News from Nuclear Plant Journal - FOIA 2011-0-147
Attachments: ENGNEWS01_1300168169P[1].pdf

From: Hamman, Jeffrey
Sent: Wednesday, March 16, 2011 6:50 AM
To: Guthrie, Eugene; Kontz, Craig; Ross, Thierry; Stancil, Charles; Pressley, Lundy; Niebaum, Phillip
Subject: FW: E-News from Nuclear Plant Journal

FYI

This came from Nuclear Plant Journal. I attached the summary pdf if the link doesn't work

From: Nuclear Plant Journal [mailto:anu@goinfo.com]
Sent: Tuesday, March 15, 2011 5:48 PM
To: Hamman, Jeffrey
Subject: E-News from Nuclear Plant Journal

Having trouble viewing this email? [Click here](#)

Nuclear Plant Journal

An International Publication
Published in the United States

Nuclear Plant Journal E-News

Japan Update
March 15, 2011

Dear JEFFREY,

Nuclear Plant Journal brings you a special E-edition of the Journal with the latest information from events related to the Miyagiken-Oki Earthquake and ensuing tsunami on March 11, 2011, in northern Japan.

All Fukushima Daiichi Nuclear Power Plants have an INES Radiation Alert Level 4. Please see this [IAEA link](#) for an explanation of the levels.

The following two links provides updates as of March 15, 2011:

- On the JAIF website, there is a [complete summary PDF](#) that includes status updates of all units at the Fukushima plant.

- The Prime Minister's office [update](#).

Organizations which are currently providing the current status of the Japanese affected nuclear power stations are listed below.

TEPCO News Releases

Tokyo Electric Power Company provides the [latest updates](#) from the utility that owns the Fukushima Daiichi Nuclear Power Station.



TOKYO ELECTRIC POWER COMPANY

Japan Atomic Industrial Forum

Please see [this link](#) for the most current from the Japan Atomic Industrial Forum.



社団法人 日本原子力産業協会
JAPAN ATOMIC INDUSTRIAL FORUM, INC.

Nuclear and Industrial Safety Agency (NISA)

Please see [this link](#) for the most current from NISA.

N I S A Nuclear and Industrial Safety Agency

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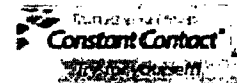
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Kontz, Craig

From: Ross, Thierry
Sent: Tuesday, April 05, 2011 6:48 PM
To: Kontz, Craig
Subject: Update on Japan Situation - FOIA 2011-0147
Attachments: ANS Japan Backgrounder.pdf

-----Original Message-----

From: Joe Colvin [<mailto:president@ans.org>]
Sent: Saturday, March 12, 2011 7:39 PM
To: Ross, Thierry
Subject: Update on Japan Situation

Dear ANS Members:

I'm sure you are aware of the rapidly developing situation in Japan. The ANS is working on multiple fronts to collect credible information on the incident, and distribute that information through mainstream and social media outlets.

We have communicated with our counterparts at the Atomic Energy Society of Japan to offer any technical or other assistance which may be of help.

We have set up a special page on the ANS blog (<http://ansnuclearcafe.org>) to aggregate media reports and provide additional information when we consider it to be credible.

We are also working to organize television appearances and other media availabilities for our members so that some of the misinformation that has been presented by anti-nuclear groups can be rebutted with facts. Our goal is not necessarily to be the first on the air, but to be the most credible.

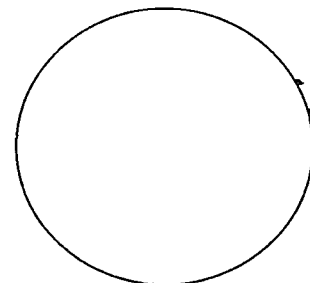
Attached you will find some talking points, along with our current analysis of the sequence of events at Fukushima I-1. I encourage you to talk to your social networks to ensure that people have the right facts and the proper perspective on this incident.

Let me know what other actions our Society should be taking during this nuclear incident.

My thoughts and prayers go out to the people of Japan.

Respectfully,

Joe Colvin



Heisserer, Jamie

From: McIntyre, Richard
Sent: Thursday, April 07, 2011 1:15 PM
To: Heisserer, Jamie; Rivera-Varona, Aida; Diaz-Castillo, Yamir; Tracy, Glenn; Atack, Sabrina
Subject: FW: Japan Steel Work JSW News

That's a bummer for our old friends at JSW!!

From: Kavanagh, Kerri
Sent: Thursday, April 07, 2011 1:02 PM
To: Peralta, Juan; McIntyre, Richard; Rasmussen, Richard
Subject: FW: JSW News

FYI...

From: Tartal, George
Sent: Thursday, April 07, 2011 8:18 AM
To: Kavanagh, Kerri
Subject: JSW News

*** Fukushima crisis dampens forging demand, says Japan Steel Works official

The Fukushima nuclear crisis is further eroding already disappointing global demand for nuclear forgings, said a Japan Steel Works official.

The company has tripled its nuclear forging capacity but expects orders to fill only 70% of the expanded capacity, said Yoshitaka Sato, general manager of the forgings and casting export department at JSW's Steel Business Division. He was interviewed April 6 at the China International Exhibition on Nuclear Power Industry in Shenzhen.

JSW now can produce 12 sets of nuclear forgings, compared to four per year in 2007 before the expansion. A set comprises the reactor vessel plus steam generators. The company held a ceremony last month and began production after major works completed on the new facilities at JSW's Muroran forging complex on Hokkaido Island, he said.

When JSW began the expansion, an investment of about \$1 billion, he said, "most of the 12 sets had been committed by major customers." But due to slower-than-expected nuclear construction in the US and fallout from the Fukushima crisis in Japan, he said, some orders "listed in our sales projects" are not expected to materialize "in the near future."

JSW had expected to pay for the expansion "pretty smoothly" with the orders that would utilize the added capacity, he said.

The "situation is getting worse ... but we are trying," Sato said of the lessening demand.

Hartland, David

From: Calle, Joselito
Sent: Thursday, April 07, 2011 2:00 PM
To: Cobey, Eugene; Hartland, David
Cc: Peterka, Nicholas
Subject: FW: Latest revision to slides
Attachments: Japan Information on NRC website.pptx

Attached is a presentation put together by Nick (in short order) to provide guidance to the public on how to access the NRC website for information on the Japanese earthquake issues. Please take a look and provide comments as appropriate.

Thanks,

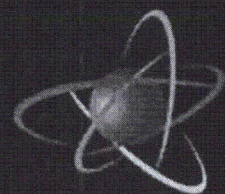
Joe

From: Peterka, Nicholas
Sent: Thursday, April 07, 2011 1:06 PM
To: Calle, Joselito
Subject: Latest revision to slides

See attached.

Nick

Nicholas Peterka
USNRC Region II
Division of Fuel Facility Inspection
Fuel Facility Inspector, Branch 2
404-997-4556



U.S. NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

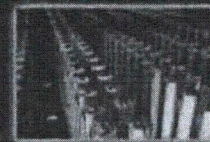
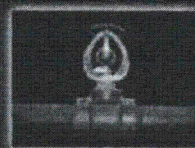
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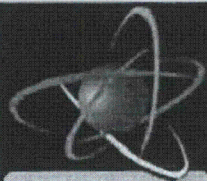
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NRC Chairman Gregory Jaczko (standing) addressed the IAEA's 5th Meeting of the Convention on Nuclear Safety, in Vienna, Austria, on the U.S. nuclear regulatory program. He also provided an update on NRC's response to the events at the Fukushima Daiichi nuclear power plants in a separate session. Other U.S. participants (seated on right) were Bill Borhardt (NRC), James Ellis (Institute for Nuclear Power Operations), and Jack Grobe (NRC).

Highlights

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April 6, 2011

[NRC Begins Special Inspection at Braidwood and Byron Nuclear Plants](#)

[NRC to Discuss 2010 Performance Assessment for LaSalle Nuclear Power Plant Unit 1 and 2 April 13](#)

[NRC Schedules Open House and Public Meeting for April 14 to Discuss Prairie Island Nuclear Power Plant Performance and NRC Oversight](#)

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- [Underground Reactor Pipes and Tritium](#)
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Division of Fuel Facility Inspection



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NRC Actions on Japan's Emergency

Commission Activity

Chairman's Remarks on the Fukushima Nuclear Plant Accident, April 4, Vienna, Austria

Chairman Statement at March 30 Hearing

Commission Meeting March 21 on Japan Nuclear Event

Chairman Gregory Jaczko March 16 Congressional Testimony

Congressional Hearing Statements by NRC on Japan Event

Transcript, Agenda, Slides
Video/Webcast

Video [EXIT](#)

Next Slide

NRC Blog

FAQs

- Questions Related to the March 11, 2011 Japanese Earthquake and Tsunami | Spanish Version
- Can It Happen Here?
- What Do I Need to Know to Protect Myself?
- Potassium Iodide
- Radiation Protection

News Releases

- 03/23/2011 11-055 Nuclear Regulatory Commission Directs Staff on Continuing Agency Response to Japan Events; Adjusts Commission Schedule
- 03/19/2011 11-053 NRC Posts Updated Seismic Questions and Answers
- 03/18/2011 11-052 NRC Informs U.S. Nuclear Power Plants on Japan Earthquake's Effects | Information Notice
- 03/16/2011 11-050 NRC Provides Protective Action Recommendations Based on U.S. Guidelines
- 03/15/2011 11-049 NRC Analysis Continues to Support Japan's Protective Actions
- 03/15/2011 11-048 (Revised) NRC Sends Additional Experts to Assist Japan
- 03/14/2011 11-047 Japanese Government Asks for Assistance with Reactor Events; U.S. Government and NRC Preparing Response
- 03/13/2011 11-046 (Revised) NRC Sees No Radiation at Harmful Levels Reaching U.S. From Damaged Japanese Nuclear Power Plants
- 03/12/2011 11-045 NRC Experts Deploy to Japan as Part of U.S. Government Response
- 03/12/2011 11-044 NRC in Communication with Japanese Regulators
- 03/11/2011 11-043 NRC Continues to Track Earthquake and Tsunami Issues

Following two Slides

Diagrams

Boiling Water Reactor (BWR)
Diagrams
Animated Diagram
Diagrams That Detail Elements

Related Info

FOIAs Related to Japan Emergency
Fact Sheet on Seismic Issues for Nuclear Plants
Fact Sheet on Emergency Preparedness at Nuclear Power Plants
Generic Issue on Seismic Hazards

Other Sources

USA.gov - Japan 2011 Earthquake/Tsunami [EXIT](#)
 USAID [EXIT](#)
 U.S. Dept. of State [EXIT](#)
 FEMA [EXIT](#)
 White House [EXIT](#)
 International Atomic Energy Agency [EXIT](#)
 EPA [EXIT](#)
 Energy [EXIT](#)

List of Questions

- 1) Can an earthquake and tsunami as large as happened in Japan also happen here? 1
- 2) Did the Japanese underestimate the size of the maximum credible earthquake and tsunami that could affect the plants? 1
- 3) How high was the tsunami at the Fukushima nuclear plants? 1
- 4) Was the damage to the Japanese nuclear plants mostly from the earthquake or the tsunami?
..... 1
- 5) Have any lessons for US nuclear plants been identified? 1
- 6) Was there any damage to US reactors from either the earthquake or the resulting tsunami? 2
- 7) How many US reactors are located in active earthquake zones? 2
- 8) What level of earthquake hazard are the US reactors designed for? 2
- 9) What magnitude earthquake are currently operating US nuclear plants designed to? 2
- 10) Have events in Japan changed our perception of earthquake risk to the nuclear plants in the US? 2



United States Nuclear Regulatory Commission

Protecting People and the Environment



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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No. 11-043

March 11, 2011

NRC CONTINUES TO TRACK EARTHQUAKE AND TSUNAMI ISSUES

Senior officials at U.S. Nuclear Regulatory Commission headquarters in Rockville, Md., are following events related to the Japanese earthquake and subsequent tsunami. In addition, the agency's regional office in Arlington, Texas, will continue to monitor the Diablo Canyon Power Plant's handling of a notice of unusual event (NOUE) at the site, near San Luis Obispo, Calif., for the duration of the event.

"We offer our condolences to all those in Japan affected by these tragedies," said NRC Chairman Gregory Jaczko. "The NRC is ready to provide whatever assistance we can to our Japanese counterparts, should there be a specific request. We're closely coordinating with other federal agencies."

Friday's tsunami warning, issued after an estimated 8.9 magnitude earthquake occurred off the eastern Japanese coast, prompted Pacific Gas and Electric Co. (PG&E), operator of the Diablo Canyon two-reactor plant, to declare a precautionary NOUE at 4:23 a.m. EST Friday. PG&E has reported both reactors have remained online throughout the event. While PG&E has reported only minor tsunami-related effects, the plant is well-protected against tsunami conditions as required by NRC regulations. NRC staff at the plant are keeping track of the plant's response during the event and remain in close contact with plant operators.

Nuclear power plants are built to withstand environmental hazards, including earthquakes and tsunamis. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster. The NRC requires that safety-significant structures, systems, and components be designed to take into account the most severe natural phenomena historically reported for the site and surrounding area.

In addition to the Diablo Canyon plant, the NRC is following events at the San Onofre nuclear power plant, the Humboldt Bay spent fuel storage site and NRC-regulated nuclear materials sites in Hawaii and Alaska to name a few. Personnel at all those sites have informed the NRC conditions remain safe.

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Division of Fuel Facility Inspection



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No. 11-055

March 23, 2011

NUCLEAR REGULATORY COMMISSION DIRECTS STAFF ON CONTINUING AGENCY RESPONSE TO JAPAN EVENTS; ADJUSTS COMMISSION SCHEDULE

The Nuclear Regulatory Commission has voted to launch a two-pronged review of U.S. nuclear power plant safety in the aftermath of the March 11 earthquake and tsunami and the resulting crisis at a Japanese nuclear power plant.

The Commission supported the establishment of an agency task force, made up of current senior managers and former NRC experts with relevant experience. The task force will conduct both short- and long-term analysis of the lessons that can be learned from the situation in Japan, and the results of their work will be made public.

"Our focus is always on ensuring the health and safety of the American people through our licensing and oversight of plants and radioactive materials in this country," Chairman Jaczko said. "Examining all the available information from Japan is essential to understanding the event's implications for the United States. We will perform a systematic and methodical review to see if there are changes that should be made to our programs and regulations to ensure protection of public health and safety."

The Commission set an aggressive schedule for the task force to provide formal updates on the short-term effort in 30, 60 and 90 days. NRC senior technical staff provided the Commission a 90-minute briefing on Monday, as a first step. The staff reiterated their conclusions that the United States and its territories will avoid any harmful radiation levels as a result of the ongoing events at the Fukushima Daiichi plant damaged by the quake and subsequent tsunami.

NRC inspectors who are posted at every U.S. nuclear power plant will also support the task force's short-term effort, supplemented as necessary by experts from the agency's regional and headquarters offices.

"This work will help determine if any additional NRC responses, such as Orders requiring immediate action by U.S. plants, are called for, prior to completing an in-depth investigation of the information from events in Japan," said NRC Executive Director for Operations Bill Borchardt.



Kirby, Janice

From: McCree, Victor
Sent: Friday, April 08, 2011 10:41 AM
To: R2MAIL; R2_RESIDENT SITES
Subject: Acting Senior Leadership Assignments in Region II

All,

As you know, Chuck Casto was dispatched to Tokyo, Japan shortly after the Fukushima nuclear event to lead the efforts of the NRC in-country team. Chuck continues to serve in this role and may remain there for some time. As a result, I want to make you aware of the following **acting** senior leadership assignments in Region II: **Chuck Ogle** will serve as the **Acting Deputy Regional Administrator for Construction** and **Jimi Yerokun** will serve as the **Acting Director, Division of Construction Inspection (DCI)**. These acting assignments are effective immediately.

Vic

Vias, Steven

From: Karen Brackett (b)(6)
Sent: Saturday, April 09, 2011 1:32 AM
To: Vias, Steven
Subject: Japan's Reactor 1 may explode

Thank you for the New York Times article. The nitrogen is unfortunate at this point because they are still adding water and the sodium borate. They needed to lower the water as they added the nitrogen... until all the water and boron was gone. They should have done it in one to three hours. They don't realize it but they are creating nitrous oxide... They are risking an explosion at this point. It's so simple to fix... but they just don't understand water is like gasoline on this fuel. I have been focused on some other issues in the last few days and only just found your email... Thank you for getting my attention back on this.

Karen Sherry Brackett



Vias, Steven

From: Karen Brackett [REDACTED] (b)(6)
Sent: Sunday, April 10, 2011 3:58 AM
To: Vias, Steven
Subject: It is what it is

"And engineers have been adding nitrogen into the primary containment shell around reactor No. 1, a move aimed at countering a buildup of flammable hydrogen in the unit. The inert nitrogen displaces oxygen that could fuel an explosion, like the hydrogen blast that blew apart the buildings surrounding units 1 and 3 in the days following the earthquake. Hydrogen buildup is a symptom of damaged fuel rods in the cores of the reactors. But Tokyo Electric has called the chances of another explosion "extremely low." And new equipment allowed engineers to raise the concentration of nitrogen from 98 percent to 99 percent Saturday, Nishiyama said."

<http://www.cnn.com/2011/WORLD/asiapcf/04/09/japan.nuclear.reactors/index.html>

Alright sounds like they are good to go. As long as the nitrogen stays at this concentration which will keep the resultant oxygen percent at the right levels... They should be fairly well set on this one for now.

It is still unfortunate that they are keeping the water in the pool. Doing this makes this a never ending process of feeding nitrogen and bleeding contaminated water. There will be times due to barometric pressure that they will need to bleed pressure off this system as well. This is not a system they can run for months and years. Well... they can but it would be a ridiculous waste of money and just terrible for the environment.

I really think they should convert to dilute nitric acid and slowly build the concentration up until the rods are dissolved... This should not take more than a day. Although making certain they have leak proof liners and containment may take a few days. Then they may set up leaching stations

and reprocess the waste.

With enough leaching stations in time they could actually reclaim this lost land and really perfect the fuel recycle process.

Karen Sherry Brackett