

From: [Sheron, Brian](#)
To: [Weber, Michael](#); [Martin Brechbeil](#); [Leeds, Eric](#); [Borchardt, Bill](#); [Wiggins, Jim](#); [Hanev, Catherine](#); [Miller, Charles](#); [Dean, Bill](#); [McCree, Victor](#); [Satorius, Mark](#); [Collins, Elmo](#)
Cc: [Case, Michael](#); [Richards, Stuart](#)
Subject: FW: [Yama] Situation now - Japan NPPs - ECCS mode
Date: Friday, March 11, 2011 7:21:13 AM

FYI.

From: Lawrence.BURKHART@oecd.org [<mailto:Lawrence.BURKHART@oecd.org>]
Sent: Friday, March 11, 2011 5:51 AM
To: [Leeds, Eric](#); [Regan, Christopher](#); [Sheron, Brian](#); [Sangimino, Donna-Marie](#); [Doane, Margaret](#); [Cullingford, Michael](#); [Johnson, Michael](#); [Uhle, Jennifer](#); [Schwartzman, Jennifer](#)
Cc: [Holahan, Gary](#); [Williams, Donna](#); John.NAKOSKI@oecd.org; Diane.JACKSON@oecd.org
Subject: FW: [Yama] Situation now - Japan NPPs - ECCS mode

Dear all,

Greetings from Paris. Im sure you've heard about the earthquake in Japan and Im sure you may have your own information sources. But just wanted to pass on this is an email from a colleague (who used to work at NEA but recently returned to Japan).

Apparently all of the 15 Japanese Nuclear Power Plants shutdown successfully but there are some issues with Diesel Generators operating properly at the plants listed below.

I will send more info if it is relevant and if you would like.

Very Best Regards. Larry

From: [Akihiro YAMAMOTO](mailto:Akihiro.YAMAMOTO@houshasen.tsuruga.fukui.jp) [<mailto:a-yamamoto@houshasen.tsuruga.fukui.jp>]
Sent: Friday, March 11, 2011 11:30
To: [GAUVAIN Jean, NEA/SURN](#)
Cc: [REIG Javier, NEA/SURN](#); [ECHAVARRI Luis, NEA](#); [YOSHIMURA Uichiro, NEA/SURN](#); [GUYOT Lydie, NEA](#); [PEYRAT Marie-Laure, NEA/SURN](#); [GAS Serge, NEA/RE](#); [BREEST Axel, NEA/SURN](#); [MAUNY Elisabeth, NEA/SURN](#); [LAMARRE Greg, NEA/SURN](#); [REHACEK Radomir, NEA/SURN](#); [HUERTA Alejandro, NEA/SURN](#); [JACKSON Diane, NEA/SURN](#); [GAUVAIN Jean, NEA/SURN](#); [NAKOSKI John, NEA/SURN](#); [GRESS Philippe, NEA/SURN](#); [BURKHART Lawrence, NEA/SURN](#); [IANNOLO Nicolina, NEA/SURN](#); [CHAUHAN Roopa, DAF/COMP](#); christele.tephanympania@oecd.org; [LITTLE Aileen, NEA/ADMI](#); 'Carlo Vitanza'; [AMRI Abdallah, NEA/SURN](#)
Subject: [Yama] Situation now - ECCS mode

Dear all,

TEPCO (Tokyo Electric Power Company) declared the state of emergency of following NPPs:

Fukushima 1-1
Fukushima 1-2
Fukushima 1-3
Fukushima 2-1 (**ECCS mode now**)

I am trying to get information why DG can't start up (problem of intake sea water for the cooling DG system?)

2/01

There is a fire from turbine building (B1 floor) at Onagawa NPP unit 1 but the fire fighting was completely succeeded.

<http://www.yomiuri.co.jp/dy/national/20110311dy01.htm>

A while ago, Fukui (my office located) had also earthquake (M4.1). We have 15 NPPs but no damage to the NPPs.

Yama

+++++

Akihiro YAMAMOTO

Ageing Management Specialist,
Nuclear Safety Measurement Division
Fukui Prefectural Government

Telephone: +81 (0) 776 20 0314

E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp

+++++

From: [HOO Hoc](#)
To: [HOO Hoc](#)
Subject: HOO HIGHLIGHT - DIABLO CANYON UNUSUAL EVENT
Date: Friday, March 11, 2011 5:11:08 AM

Diablo Canyon declared a Notice of Unusual Event at 0123 PST due to a Tsunami Warning for the coastal areas of California as a result of a 8.9 magnitude earthquake off the coast of Japan. The Agency remains in the NORMAL response mode as of 0452 EST.

Joe O'Hara
Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov



7-02

From: [HOO Hoc](#)
To: [HOO Hoc](#)
Subject: HOO HIGHLIGHT - NRC IN MONITORING MODE AT 0946
Date: Friday, March 11, 2011 10:08:44 AM

The NRC is in the Monitoring Response Mode as of 0946 on 3/11/11. Region IV will take the lead for U.S. sites and HQ for international sites to provide assistance in response to the earthquake in Japan and any adverse affects from a tsunami. This response mode change is NOT associated with event number 46668.

Joe O'Hara
Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov



2-03

From: [HOO Hoc](#)
To: [HOO Hoc](#)
Subject: HOO Highlight - NOUE Termination at Diablo Canyon
Date: Friday, March 11, 2011 7:49:55 PM

1528 PST - Diablo Canyon has terminated their Unusual Event because the tsunami warning has been reduced to a tsunami advisory. No damage occurred during this event.

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov



2-04

From: [Haney, Catherine](#)
To: [Dorman, Dan](#)
Subject: Re: Upadated Final Version of Redacted Memos
Date: Friday, March 11, 2011 2:22:54 PM

Were you on the CA brief on Japan that took place at 1? If not and want any info, give me a call.

From: Dorman, Dan
To: Vietti-Cook, Annette
Cc: Haney, Catherine
Sent: Fri Mar 11 14:19:34 2011
Subject: FW: Upadated Final Version of Redacted Memos

Annette,

These are the redacted documents. OCA (Amy Powell) has distributed them on the Hill.

Dan

From: Parker, Nicole
Sent: Friday, March 11, 2011 2:14 PM
To: Powell, Amy; Kokajko, Lawrence; Davis, Jack; Schmidt, Rebecca; Stablein, King; Kotra, Janet; Haney, Catherine; Dorman, Dan; Brenner, Eliot
Cc: Valencia, Jennifer; Chidichimo, Gabriele; Benney, Brian
Subject: Upadated Final Version of Redacted Memos

Good Afternoon

We made a slight change to the documents in the header and footers we mad a slash through the Official Use Only Sensitive Internal Use Only.

Thanks

2-05

Wittick, Brian

From: Wittick, Brian
Sent: Wednesday, April 13, 2011 8:32 PM
To: LIA08 Hoc; Blamey, Alan
Subject: RE: Thoughts for tonight's Turnover from the LT

Sounds good.

From: LIA08 Hoc
Sent: Wednesday, April 13, 2011 8:28 PM
To: Blamey, Alan; Wittick, Brian
Subject: Thoughts for tonight's Turnover from the LT

Are you guys OK if I submit this for the LT turnover? I owe Bruce Boger an answer within about 30 minutes

Thoughts for tonight's Turnover from the LT

- The Cabinet meetings in Japan are now being held on just Tuesday/Thursday. The Site Team in Japan will discuss whether or not to move the Consortium calls to align with the evenings that the Cabinet meets. They will let HQ know their preference.
- Site Team has been experiencing some internet difficulties. To help resolve the issue, the AT&T air cards were reactivated.

2/06

Wittick, Brian

From: Wittick, Brian
Sent: Thursday, April 14, 2011 6:11 AM
To: LIA08 Hoc; Doane, Margaret; Mamish, Nader
Cc: LIA02 Hoc; Foggie, Kirk; Abrams, Charlotte; Bloom, Steven
Subject: RE: Read out from 4/14 meetings

Thanks Jeff. The action items fall under OIPs normal cooperation mantra more so than the emergency response function of the site team. The OIP desk officer should be able to facilitate the dialogue with OGC, NRR and NSIR after working with NISA to refine the information request. The reason the TMI related items are more near term is that NISA will need to make some decisions regarding what mechanisms they want to pursue (orders, license, etc) for decommissioning.

Thanks for all the assistance you have been providing.
Brian

From: LIA08 Hoc
Sent: Thursday, April 14, 2011 5:45 AM
To: Wittick, Brian; Doane, Margaret; Mamish, Nader
Cc: LIA02 Hoc; Foggie, Kirk; Abrams, Charlotte; Bloom, Steven
Subject: RE: Read out from 4/14 meetings

Brian....let me know what the Liaison Team can do to help facilitate anything you need. Jeff Temple

From: Wittick, Brian
Sent: Thursday, April 14, 2011 5:25 AM
To: Doane, Margaret; Mamish, Nader
Cc: LIA08 Hoc; LIA02 Hoc; Foggie, Kirk; Abrams, Charlotte; Bloom, Steven
Subject: FW: Read out from 4/14 meetings

Margie,

Attached please find the results of the Thursday meeting. Please note that a couple of follow-up actions in support of NISA are outside the scope of the site team charter and require OIP coordination. These include review of alternative emergency actions, and lessons learned from TMI (specifically wrt legal and licensing issues). The later needs dialogue in the near term.

VR/
Brian

2/07

Andersen, James

From: Golder, Jennifer
Sent: Thursday, April 14, 2011 6:13 PM
To: Muessle, Mary; Jacobs-Baynard, Elizabeth; Andersen, James; Mamish, Nader; Peterson, Gordon
Subject: RE: Tasking- FY2012 initial resources for Japan response
Importance: High

Mary,

Jim mentioned this morning to me. We were planning on coordinating with you. Could you please include Gordon tomorrow as he is acting for me from tomorrow through the 25th.

Thank you!

Jennifer Golder

Budget Director
Office of the Chief Financial Officer
United States Nuclear Regulatory Commission

From: Muessle, Mary
Sent: Thursday, April 14, 2011 5:12 PM
To: Jacobs-Baynard, Elizabeth; Andersen, James; Mamish, Nader; Golder, Jennifer; Peterson, Gordon
Subject: Tasking- FY2012 initial resources for Japan response
Importance: High

The Chairman has asked that we come up FY 2012 initial resource estimates for immediate work related to Japan. This estimate would not include resources for recommendations from the task force. Our thoughts are these could include additional FOIA work, a site team in Japan, and any necessary resources to get regular work back on track that may have stopped as a result of our response efforts.

Unfortunately, I do not have the timeline. I will ask, but maybe we could get together tomorrow or Monday to discuss.
Thanks
Mary

Mary Muessle
Assistant for Operations - Acting
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1703 office
301-415-2700 fax

2/08

Weber, Michael

From: Weber, Michael
Sent: Saturday, March 12, 2011 10:21 PM
To: LIA05 Hoc
Subject: FYI - Update on Japan Situation
Attachments: ANS Japan Backgrounder.pdf

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

From: Grobe, Jack
To: Brenner, Eliot
Cc: Jaczko, Gregory; Borchardt, Bill; Virgilio, Martin; Weber, Michael; Leeds, Eric
Sent: Sat Mar 12 22:18:57 2011
Subject: Fw: Update on Japan Situation

Eliot,

Not sure if you have seen this. Thought you would be interested in what the ANS is saying.

Jack
Jack Grobe, Deputy Director, NRR

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

From: Joe Colvin <president@ans.org>
To: Grobe, Jack
Sent: Sat Mar 12 19:31:59 2011
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.

2-09

Respectfully,

Joe Colvin

American Nuclear Society Backgrounder: Japanese Earthquake/Tsunami; Problems with Nuclear Reactors

3/12/2011 5:22 PM EST

To begin, a sense of perspective is needed... right now, the Japanese earthquake/tsunami is clearly a catastrophe; the situation at impacted nuclear reactors is, in the words of IAEA, an "Accident with Local Consequences."

The Japanese earthquake and tsunami are natural catastrophes of historic proportions. The death toll is likely to be in the thousands. While the information is still not complete at this time, the tragic loss of life and destruction caused by the earthquake and tsunami will likely dwarf the damage caused by the problems associated with the impacted Japanese nuclear plants.

What happened?

Recognizing that information is still not complete due to the destruction of the communication infrastructure, producing reports that are conflicting, here is our best understanding of the sequence of events at the Fukushima I-1 power station.

- The plant was immediately shut down (scrammed) when the earthquake first hit. The automatic power system worked.
- All external power to the station was lost when the sea water swept away the power lines.
- Diesel generators started to provide backup electrical power to the plant's backup cooling system. The backup worked.
- The diesel generators ceased functioning after approximately one hour due to tsunami induced damage, reportedly to their fuel supply.
- An Isolation condenser was used to remove the decay heat from the shutdown reactor.
- Apparently the plant then experienced a small loss of coolant from the reactor.
- Reactor Core Isolation Cooling (RCIC) pumps, which operate on steam from the reactor, were used to replace reactor core water inventory, however, the battery-supplied control valves lost DC power after the prolonged use.
- DC power from batteries was consumed after approximately 8 hours.
- At that point, the plant experienced a complete blackout (no electric power at all).
- Hours passed as primary water inventory was lost and core degradation occurred (through some combination of zirconium oxidation and clad failure).

- Portable diesel generators were delivered to the plant site.
- AC power was restored allowing for a different backup pumping system to replace inventory in reactor pressure vessel (RPV).
- Pressure in the containment drywell rose as wetwell became hotter.
- The Drywell containment was vented to outside reactor building which surrounds the containment.
- Hydrogen produced from zirconium oxidation was vented from the containment into the reactor building.
- Hydrogen in reactor building exploded causing it to collapse around the containment.
- The containment around the reactor and RPV were reported to be intact.
- The decision was made to inject seawater into the RPV to continue to the cooling process, another backup system that was designed into the plant from inception.
- Radioactivity releases from operator initiated venting appear to be decreasing.

Can it happen here in the US?

- While there are risks associated with operating nuclear plants and other industrial facilities, the chances of an adverse event similar to what happened in Japan occurring in the US is small.
- Since September 11, 2001, additional safeguards and training have been put in place at US nuclear reactors which allow plant operators to cool the reactor core during an extended power outage and/or failure of backup generators – “blackout conditions.”

Is a nuclear reactor "meltdown" a catastrophic event?

- Not necessarily. Nuclear reactors are built with redundant safety systems. Even if the fuel in the reactor melts, the reactor's containment systems are designed to prevent the spread of radioactivity into the environment. Should an event like this occur, containing the radioactive materials could actually be considered a "success" given the scale of this natural disaster that had not been considered in the original design. The nuclear power industry will learn from this event, and redesign our facilities as needed to make them safer in the future.

What is the ANS doing?

ANS has reached out to The Atomic Energy Society of Japan (AESJ) to offer technical assistance.

ANS has established an incident communications response team.

This team has compiling relevant news reports and other publicly available information on the ANS blog, which can be found at ansnuclearcafe.org.

The team is also fielding media inquiries and providing reporters with background information and technical perspective as the events unfold.

Finally, the ANS is collecting information from publicly available sources, our sources in government agencies, and our sources on the ground in Japan, to better understand the extent and impact of the incident.

From: [Operations Center Bulletin](#)
To: [OST02 HOC](#)
Subject: FW: NRC IS RESPONDING TO AN EMERGENCY OUTSIDE of the United States
Date: Sunday, March 13, 2011 11:13:54 AM

THIS IS NOT A DRILL

The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response to the events in Japan. The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States. The NRC's Headquarters Operations Center in Rockville, MD has been stood up since the beginning of the emergency in Japan and is operating on a 24-hour basis.

NRC Incident Responders at Headquarters have spoken with the agency's counterpart in Japan and offered the assistance of U.S. technical experts. Two officials from the NRC with expertise on boiling water nuclear reactors have deployed to Japan as part of a U.S. International Agency for International Development (USAID) team. USAID is the Federal government agency primarily responsible for providing assistance to countries recovering from disasters.

U.S. 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 in account the most severe natural phenomena historically estimated for the site and surrounding area.

The NRC will **not** provide information on the status of Japan's nuclear power plants. For the latest information on NRC actions see the NRC's web site at www.nrc.gov or blog at <http://public-blog.nrc-gateway.gov>.

Two important reminders:

It is possible that some of us will be requested by colleagues in another country to provide technical advice and assistance during this emergency. It is essential that all such communications be handled through the NRC Operations Center. Any assistance to a foreign government or entity must be coordinated through the NRC Operations Center and the U.S. Department of State (DOS). If you receive such a request, contact the NRC Operations Officer (301-816-5100 or via the NRC Operator) immediately.

If you receive information regarding this or any emergency (foreign or domestic) and you are not certain that the NRC's Incident Response Operations Officer is already aware of that information, you should contact the NRC Operations Officer (301-816-5100 or via the NRC Operator) and provide that information.

Other Sources of Information:

USAID – www.usaid.gov

2-10

U.S. Department of State – www.state.gov

FEMA – www.fema.gov

White House – www.whitehouse.gov

Nuclear Energy Institute – www.nei.org

International Atomic Energy Agency – www.iaea.org/press

No response to this message is required.

THIS IS NOT A DRILL

Merzke, Daniel

From: Merzke, Daniel
Sent: Wednesday, April 13, 2011 4:12 PM
To: Bubar, Patrice
Cc: Andersen, James; Muessle, Mary; Vietti-Cook, Annette
Subject: FW: Request from Commissioner Magwood

Patty, many apologies for nobody getting back to you on your request. I'd blame it on the post office, but that probably won't fly. I've requested from NSIR a schedule of planned meetings. At this time, the only meeting I know for sure is being led by EPA on 4/21, and it's concerning the working group paper being developed for long-term cleanup criteria, which was one of the PLE topics. There is supposed to be a Deputies meeting to make a decision during the last week of April/first week of May, but it hasn't been scheduled, yet, and I'm hearing the due date for the paper got extended to 4/29, so it may get pushed back even further.

So far there are no meetings scheduled with external stakeholders on the re-entry issue to Japan. I just attended an alignment meeting on the draft re-entry paper, and it looks like the plan is to hopefully get it finalized by Friday. Then it will be rolled out to external stakeholders for comment. If that results in an interagency meeting, I'll try to remember to let you know when that is scheduled. Other than that, I know of no other interagency meetings on these topics. If I hear more, I'll let you know.

From: Andersen, James
Sent: Wednesday, April 13, 2011 11:51 AM
To: Merzke, Daniel
Cc: Muessle, Mary
Subject: RE: Request from Commissioner Magwood

Dan, do we have anything in this area. Sorry, I didn't get to these e-mails until now.

Jim A.

From: Bubar, Patrice
Sent: Wednesday, April 13, 2011 9:37 AM
To: Vietti-Cook, Annette; Muessle, Mary; Andersen, James
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Bates, Andrew; Hart, Ken; Laufer, Richard; Baval, Rochelle
Subject: RE: Request from Commissioner Magwood

Annette, Mary and Jim – any update on when we will get a response?

Patty Bubar
Chief of Staff
Office of Commissioner William D. Magwood
U.S. Nuclear Regulatory Commission
301-415-1895

From: Vietti-Cook, Annette
Sent: Wednesday, April 06, 2011 8:03 AM
To: Muessle, Mary; Andersen, James
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Bubar, Patrice; Bates, Andrew; Hart, Ken; Laufer, Richard; Baval, Rochelle
Subject: FW: Request from Commissioner Magwood

2/11

Commissioner Magwood is requesting the information on the meetings NRC is being asked to participate in with other federal agencies and the office of the President – relating to Protective Action Guidelines and cleanup levels in the U.S. as well as re-entry guidance for U.S. citizens in Japan.

Can you help in providing a response or point me in the right direction?

From: Bubar, Patrice

Sent: Tuesday, April 05, 2011 6:22 PM

To: Vietti-Cook, Annette; Hart, Ken; Bates, Andrew

Cc: Sosa, Belkys; Nieh, Ho; Sharkey, Jeffry; Batkin, Joshua; Tadesse, Rebecca

Subject: Request from Commissioner Magwood

SECY – Commissioner Magwood requests that Commission offices be provided information on the meetings that NRC is being asked to participate in with other federal agencies as well as the Office of the President – relating to Protective Action Guidelines and cleanup levels in this country as well as re-entry guidance for US citizens in Japan.

Thank you and let me know if you have any questions.

Patty Bubar

Chief of Staff

Office of Commissioner William D. Magwood

U.S. Nuclear Regulatory Commission

301-415-1895

Clayton, Kathleen

From: Casto, Chuck
Sent: Monday, March 14, 2011 9:21 PM
To: Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Cook, William; Devercelly, Richard; Ulses, Anthony; Trapp, James; Smith, Brooke; Foggie, Kirk
Cc: Virgilio, Martin; Borchardt, Bill; LIA10 Hoc
Subject: Travel and thoughts

Folks, i don't know if and when you might get this email, but here's some thoughts for our work.

Let me know if you need anything. The Chairman and EDO are fully supporting our needs and they clearly expressed that to me.

We are to support the Ambassador in all ways possible.

My flight may be the last to arrive. Seemingly the logistics from Atlanta are difficult. I am on a flight to Dallas now.

Let's think about organization of the team. It seems to me that we need a reactor safety team, protective measures, recovery/severe accident, and liaison team.

First we need briefings by Jim and Tony. Then a briefing by the host. Plus we need an operations center or place to work from. I believe that we have some KI but might need more.

Please think about who is on what group, i.e. Team. Then we probably need to reach back to resources in the US. For instance we may want to set up a bridge with general electric, INPO, and other technical groups.

For the protective measures team let's think about reaching back to DOE/FERMAC for advice.

You get my point. While I don't know the organizational situation over there, absent any other arrangement, let's form teams like we would in the US, and reach back to our counterparts, both federal and industry to accomplish our work. I would suggest using the Hoo Liaison team for coordination. We need to leverage all assets for maximum effect.

John I would suggest that you work with Brooke and Kirk.

Those are merely initial thoughts and suggestions. I know it will likely change immediately upon arrival.

I am anxious to get there and work with this break group and our counterparts back home.

See you soon.

Chuck

2-12

Taylor, Renee

From: Borchardt, Bill
Sent: Monday, March 14, 2011 4:58 PM
To: HOO Hoc; Grobe, Jack; Dorman, Dan; Weber, Michael
Cc: Powell, Amy; Schmidt, Rebecca; Batkin, Joshua; Virgilio, Martin; Rihm, Roger
Subject: FW: UPDATE re: interagency briefing tomorrow at 1pm

I request the ET in the Ops Center to prepare talking points for my use during this meeting. I would also like an updated status report Tues AM. You might want to start with the briefing sheet Marty used to brief congressional staff this afternoon.

From: Powell, Amy
Sent: Monday, March 14, 2011 4:15 PM
To: Borchardt, Bill
Cc: Schmidt, Rebecca; Batkin, Joshua; Taylor, Renee; Virgilio, Martin
Subject: UPDATE re: interagency briefing tomorrow at 1pm

Bill –

We just got some additional information about tomorrow's interagency briefing that the White House is arranging with both Senate and House Leadership and Committees. The briefing will be at **1pm on the Senate side (room TBD)**. There will be one briefing that will include staff from both the House and Senate; with both chambers in session, I would not be surprised if a few Members came as well.

Either Becky or I will go down with you – I'll pass along additional information as I get it.

Thanks,
Amy

Amy Powell
Associate Director
U. S. Nuclear Regulatory Commission
Office of Congressional Affairs
Phone: 301-415-1673



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200

Washington, D.C. 20555-0001

E-mail: opa.resource@nrc.gov Site: www.nrc.gov

Blog: <http://public-blog.nrc-gateway.gov>

No. 11-048R

March 14, 2011

REVISED: NRC SENDS ADDITIONAL EXPERTS TO ASSIST JAPAN

The NRC has sent nine additional experts to Tokyo to provide assistance as requested by the Japanese government. Acting as part of a U.S. Agency for International Development assistance team, the NRC has dispatched the experts to Tokyo to provide assistance as requested by the Japanese government.

The first members of the team left the United States Monday evening and were due to arrive in Tokyo Wednesday afternoon. The team includes additional reactor experts, international affairs professional staffers, and a senior manager from one of the NRC's four operating regions.

The team members come from the NRC's headquarters in Rockville, Md., and from offices in King of Prussia, Pa., Chattanooga, Tenn., and Atlanta. The team has been instructed to: conduct all activities needed to understand the status of efforts to safely shut down the Japanese reactors; better understand the potential impact on people and the environment of any radioactivity releases; if asked, provide technical advice and support through the U.S. ambassador for the Japanese government's decision making process; and draw on NRC-headquarters expertise for any other additional technical requirements. The team will be in communication with the Japanese regulator, the U.S. Embassy, NRC headquarters, and other government stakeholders as appropriate.

The team is led by Charles A. Casto, deputy regional administrator of the NRC's Center of Construction Inspection, based in NRC's office in Atlanta. Casto has worked in the commercial nuclear power industry at three different nuclear power plants, including Browns Ferry, which has three boiling water reactors, operated by the Tennessee Valley Authority in Alabama. He has also worked as a licensed reactor operator and operator instructor. Casto will provide a single point of contact for the U.S. Ambassador in Japan on nuclear reactor issues.

The two reactor experts sent Saturday to Japan will participate as members of this assistance team.

Note To Editors: Revision reflects an additional team member, there are now a total of 11 NRC staffers on the assistance team.

###

News releases are available through a free *listserv* subscription at the following Web address: <http://www.nrc.gov/public-involve/listserv.html>. The NRC homepage at www.nrc.gov also offers a SUBSCRIBE link. E-mail notifications are sent to subscribers when news releases are posted to NRC's website.

2-14

From: Ordaz, Vonna
To: Haney, Catherine; Dorman, Dan
Cc: Weaver, Doug; Rahimi, Meraj; Pulliam, Timothy; Fitch, Karen; Doolittle, Elizabeth; White, Bernard
Subject: Heads Up - Potential Workload Impact due to Ops Center Support
Date: Monday, March 14, 2011 12:40:12 PM

Cathy/Dan,

A few of our staff members were called to support the Ops Center including Rollie Berry, Kevin Witt, and Kim Gambone. We fully agree that the Ops Center support is the highest priority, and these individuals are already over there. However, this may cause some delays in Rollie's workload including preparations for the SFST business line deliverables and meetings, SPO inputs, and SES midyear write-ups. Kevin is the backup for some of these items, and he was called to the Ops Center, too. We will do our best with supporting the deliverable dates to PBPA and the FO, but want you to be aware, in advance, that there may be some delays.

Thanks,
Vonna

2-15

From: [Haney, Catherine](#)
To: [Dorman, Dan](#)
Cc: [Walker, Dwight](#)
Subject: RE: This week
Date: Monday, March 14, 2011 8:24:00 AM

Let's see what happens by the end of the week. I'll come into the office on Friday am and leave after the brief. Having Friday off isn't such a big deal since I'm not leaving until Saturday now.

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

From: Dorman, Dan
Sent: Sunday, March 13, 2011 5:02 PM
To: Haney, Catherine
Cc: Walker, Dwight
Subject: This week

Cathy,

I just spoke with Bill and agreed to cover the ET on the 2300-0700 shift starting Monday night and continuing through the week. I plan to take the next 30 hours to adjust my system to night shift, so I will not be in the office tomorrow (Monday). I will continue to plan to cover the Friday morning meetings if I am still on shiftwork - I will get out of the IRC Friday morning around 0730 and roll into the morning meetings at 0900. For preparation of the Office in the Spotlight, I will come over to EBB Tuesday AM after my shift to work with Lisa Anne to finalize the package.

I will work with Dwight Monday morning to adjust whatever else needs adjustment on my calendar for the week.

Dan

2-116

From: [Haney, Catherine](#)
To: [Kokajko, Lawrence](#); [Ordaz, Vonna](#)
Bcc: [Mayfield, Michael](#)
Subject: Fw: Information Sheet Regarding the Tohoku Earthquake
Date: Monday, March 14, 2011 1:39:59 PM

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

From: Tschiltz, Michael
To: Haney, Catherine
Cc: Dorman, Dan; Smith, Brian; Bailey, Marissa; Habighorst, Peter; Campbell, Larry; Silva, Patricia; Hiltz, Thomas
Sent: Mon Mar 14 09:55:32 2011
Subject: FW: Information Sheet Regarding the Tohoku Earthquake

This is the most detailed write up I have seen.. It was sent after I left the Op Center yesterday. Mike

From: Kazuhiko Hiruta [Hiruta@denjiren.com]
Sent: Sunday, March 13, 2011 4:47 PM
To: Kazuhiko Hiruta
Subject: Fwd: Information Sheet Regarding the Tohoku Earthquake

Dear friends,

Please find information about the incidents at Fukushima Nuclear Power Station. If you have questions, please feel free to contact me.

Kazuhiko Hiruta

Begin forwarded message:

: Tai Inada <Inada@denjiren.com>
: March 13, 2011 16:36:27 EDT
: Tai Inada <Inada@denjiren.com>
: Information Sheet Regarding the Tohoku Earthquake

Dear Friends,

Please find an information sheet below and attached that summarizes the events of the past few days in Japan and the continuing efforts to mitigate the incident at Fukushima Daiichi Nuclear Power Station.

Please direct any questions regarding this document to me, Tai Inada or Samuel Lederer, Researcher with FEPC at lederer@denjiren.com or 202-466-6781.

Tai Inada

2-17

The Federation of Electric Power Companies of Japan (FEPC)

1901 L Street NW, Suite 600

Washington, DC 20036

Tel: 202-466-6781

Fax: 202-466-6758

Information Sheet Regarding the Tohoku Earthquake

The Federation of Electric Power Companies of Japan (FEPC) Washington DC Office

As of 4:30PM (EST), March 13, 2011

At 2:46PM (JST) on March 11, 2011, a 9.0-magnitude earthquake occurred near the Tohoku region of Northeast Japan. The epicenter of the earthquake lies 17 miles below the earth's surface in the Pacific Ocean, 81 miles off the coast from Sendai City. Intense shaking could be felt from Tokyo to Kamaishi, an arc of roughly 360 miles.

The earthquake generated a tsunami with waves of more than 30 feet that caused widespread damage to a swath of the northeast Japan coastline. In addition to the significant destruction of buildings, infrastructure, and human property, two of Japan's 17 nuclear power stations (sites)—Fukushima Daiichi and Fukushima Daini—suffered damage due to the tsunami. All three of the six operating reactors at Fukushima Daiichi Nuclear Power Station and all four reactors at Fukushima Daini Nuclear Power Station, both operated by Tokyo Electric Power Company (TEPCO), shut down automatically in response to the earthquake. TEPCO is one of ten member companies of The Federation of Electric Power Companies of Japan (FEPC).

A state of emergency was declared at Fukushima Daiichi at 7:03PM March 11. Unit 1 and 3 reactors at Fukushima Daiichi lost primary reactor cooling because of a loss of all electrical power. Emergency cooling systems were engaged to lower the core reactor temperature. In order to alleviate the buildup of pressure, slightly radioactive vapor, that posed no health threat, was passed through a filtration system and emitted outside via a ventilation stack from Unit 1 reactor vessel at 9:07AM on March 12 and Unit 3 reactor vessel at 9:20PM on March 13. At 3:36PM on March 12, an explosion occurred at Fukushima Daiichi Unit 1 reactor damaging the roof of the secondary containment building. The explosion—caused by the interaction of hydrogen and oxygen vapor between the primary containment vessel and secondary containment building—did not damage the primary containment vessel or the reactor core. Four workers who were injured by the explosion were transported to a nearby hospital.

In order to control the pressure of the reactor core, TEPCO began to inject seawater and boric acid into the primary containment vessels of Unit 1 (8:20PM, March 12) and Unit 3 (1:12PM, March 13). There is likely some damage to the fuel rods contained the reactor core of Unit 1 and 3 reactors. The water level in the reactor vessel of Unit 2 reactor is steady. Personnel from TEPCO are closely monitoring the status of Unit 1, 2, and 3 reactors. The highest recorded radiation level at the Fukushima Daiichi site was 1557 micro sievert (1:52PM, March 13). The most recent reported level at Fukushima Daiichi is 44 micro sievert (7:33PM, March 13).

While representatives of the Japanese government have acknowledged the potential for partial meltdowns at Fukushima Daiichi Unit 1 and 3 reactors, there is no danger for core explosion, as occurred at the nuclear power station at Chernobyl in 1986. Control rods have been successfully inserted at all of the reactors, thereby ending the chain reaction. The reactor cores at Fukushima Daiichi and Daini power stations are surrounded by steel and concrete containment vessels of 40 to 80 inches thick that are designed to contain radioactive materials.

At 7:45AM on March 12, a state of emergency was declared for Fukushima Daini. There is electricity available at all four of the reactors at Fukushima Daini, including Unit 3 reactor. Although there is limited availability of the cooling water pumps at Unit 1, 2, and 4 reactors, TEPCO is working effectively to maintain constant cooling in the primary containment vessels. TEPCO confirms that no radioactivity has been recorded outside of the secondary containment buildings at Fukushima Daini.

Two other plants in the Tohoku region, Onagawa Nuclear Power Station and Tokai Nuclear Power Station, were automatically shut down in response to the earthquake. The four reactors at these plants have functioning cooling systems and are being monitored by plant operators. The Rokkasho Reprocessing Plant and accompanying facilities, located far north of the tsunami zone in Rokkasho Town, is operating safely on backup power generation systems. Japan Nuclear Fuel Limited (JNFL), which operates the Rokkasho facilities, drained a 600-liter spill from the containment pool for spent fuel through a specialized wastewater treatment system. Two casks of low-level nuclear waste (LLW), which were being prepared for transport from Mutsu Ogawara Port when the earthquake occurred, have been successfully received at the Rokkasho facility.

Japanese nuclear facilities are built to exacting safety standards. They are designed to withstand powerful seismic events, such as earthquakes. In this earthquake—the strongest recorded over the past 100 years in Japan—the containment structures of Fukushima Daiichi maintained their structural integrity. These facilities were designed to withstand tsunamis within a range of assumed strength. In this event, however, the force of the tsunami exceeded the assumed range and flooded diesel generators at Fukushima Daiichi power station, thus precipitating the loss of power for the reactor cooling systems.

In order to minimize adverse health effects of any potential radioactive release, the Japanese government issued an evacuation order at 9:23PM on March 11 for a radius of 1.86 miles around Fukushima Daiichi. By 6:25PM on March 12, the evacuation area has been enlarged to cover the approximately 70,000 residents within 12.5 miles of Fukushima Daiichi and 6.2 miles of Fukushima Daini.

In addition to supporting the evacuations near Fukushima Daiichi and Daini nuclear power stations, TEPCO is collaborating with the Japanese government to ensure the safety of the all people in the affected region. Iodine tablets, to counteract the effects of radioactivity on the thyroid gland, have been distributed to people at the boundary of the evacuation zone. Sophisticated radiation screening equipment has been mobilized to measure radiation exposure for people close to the evacuation area. The Japanese Nuclear and Industrial Safety Agency said that as many as 160 people may have been exposed to radiation around the Fukushima Daiichi station. TEPCO and the Japanese government will continue to use their full professional and technological resources, as well as those offered by international organizations, to ensure the safety of those displaced by the earthquake and tsunami.

The automatic shutdown of the 11 operating reactors at the Onagawa Nuclear Power Station, Tokai Nuclear Power Station, Fukushima Daiichi and Daini, represents a loss of 3.5% of electric generation capacity for Japan. In addition, several thermal power stations were damaged in the earthquake and are currently under repairs. In order to compensate for this loss of electricity production, TEPCO has instituted rolling blackouts, information about which can be found on the TEPCO website. The Japanese government is also urging all residents in Japan to minimize their electricity use in order to support the relief and recovery effort in Tohoku.

FEPC, in cooperation with TEPCO and related organizations, will continue to work tirelessly to provide the public with the most accurate and timely information on the situation at the Fukushima Daiichi and Daini nuclear power stations.

From: Grobe, Jack
To: Meighan, Sean; Haney, Catherine
Subject: Fw: 2 From NMSS available with BWR Experience
Date: Monday, March 14, 2011 9:45:54 AM

Cathy

Please also get Sean passport information.
Jack Grobe, Deputy Director, NRR

From: Haney, Catherine
To: Leeds, Eric; Grobe, Jack; Boger, Bruce
Sent: Mon Mar 14 08:15:08 2011
Subject: 2 From NMSS available with BWR Experience

Lawrence is a licensed operator on this type of plant (SOP 3938). He also taught degraded core cooling post TMI.

Aby has severe accident experience for this type of unit.

I don't know if I'll be able to listen in to the 9:30 call. Just wanted you to know both are available if you need them to go to Japan.

2/18

From: [Haney, Catherine](#)
To: [Kokajko, Lawrence](#)
Subject: Periodic with Magwood
Date: Monday, March 14, 2011 4:29:00 PM

I had a few "take aways" from the periodic. Can you help?

1. What does DOE have budgeted for EST? money/dollars
2. What research are they planning
3. Do we have any insights into what we will see in the draft BRC report? Will it be recommendations or just the frame/outline for the report?

Don't forget to chat with me something tomorrow about my discussion with him on EST/WC. I'm leaving shortly to run some errands that I never got to at lunch.

2/19

From: [Haney, Catherine](#)
To: [Mohseni, Aby](#); [Kokajko, Lawrence](#)
Bcc: [Murphy, Martin](#)
Subject: FW: Confirmation of names for Japan
Date: Monday, March 14, 2011 1:18:00 PM

From: Leeds, Eric
Sent: Monday, March 14, 2011 1:11 PM
To: Collins, Elmo; Satorius, Mark; McCree, Victor; Dean, Bill; Sheron, Brian; Tracy, Glenn; Hudson, Jody; Johnson, Michael; Miller, Charles; Haney, Catherine; Zimmerman, Roy; Stewart, Sharon; Virgilio, Martin; Weber, Michael; Borchardt, Bill; Mamish, Nader; Doane, Margaret; Muessle, Mary
Cc: Boger, Bruce; Grobe, Jack; Ruland, William; Meighan, Sean
Subject: Confirmation of names for Japan

Folks –

Thanks so much for your help – we have a strong database of names/expertise to support the Japanese. For this first wave, we are sending Chuck Casto, John Monninger, Tony Nakanishi, Tim Kolb, Jack Foster and Richard Devercelly. I believe that Bruce Boger has contacted all those going to join Tony Ulsis and Jim Trapp in Japan.

I imagine that at some point we may need to send a second wave of responders to relieve our first wave. We will let you know as soon as we know if this needs to be done. We are also sensitive not to over-burden any one office.

Thanks again for your support!

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

2/20

From: mishiro.masaaki@iaea.go.jp
To: John.STEIN@oecd.org
Cc: john.stein@oecd.org; Haney, Catherine; mcri@csn.es; gerald.ouzounian@andra.fr; marie-claude.dupuis@andra.fr; lorella.pecorale@oecd.org; jp.minon@nirond.be; Smith_Shawn@nwmco.ca; uichiro.yoshimura@oecd.org; claudio.pescatore@oecd.org; hans.riotte@oecd.org
Subject: Re: From Mishiro RWMC-44: Bureau debriefing
Date: Monday, March 14, 2011 9:11:50 PM

Dear Colleagues,

The aftermath of the earthquake on Friday is still continuing. The number of deaths is still not known, and the information on Fukushima Nuclear Power Plant situation is on the news all the time. Myself and my family, JAEA staff(as far as I know) are all safe.

I was at the meeting in Tokyo, and one couldn't stand up nor walk when the earthquake hit Japan. Most of the staff stayed in the office Friday night as public transportation stopped and highways were closed. Many public buildings were offered for those who could not go home and many walked home midnight. I moved on Saturday morning and it took me 11 hrs from Tokyo to my home in Mito (about 120 Km from Tokyo). (It was lucky that we could find a rent-a-car.) No water, no electricity and many things fell down from the shelves at home but fortunate that no human injuries. Enjoyed primitive life for couple of days, but electricity and water recovered on Sunday.

Still no public transportation from Mito to Tokyo. As the JAEA Tokai Headquarter Building is under safety check, I am at home right now. As many power plants (not only nuclear) were hit, there will be scheduled blackouts in east Japan areas and less public transportations. Here in Mito we still have aftershocks (small? earthquakes) almost every hour. Hundreds of cars are in long queue at every gas stations.

Having said this, I am still planning to attend RWMC-44 and I will leave Paris by night flight on 24th, so available until 19pm.

Warm regards
Mishiro

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

> Dear Bureau members,
>
> If it is possible for you stay after the meeting, we would hold a debriefing session just after closure on Day 2. In that case we would organise some refreshments as we did last year.
>
> Could you please let us know whether this will be possible for you or not.
>
> Best regards,
>
> John
> -----
> [<http://home.nea.fr/neaweb/new-signature/images/oecd-nea-logo-30-30.gif>]
>
> John Stein - OECD Nuclear Energy Agency (NEA)
> Radiation Protection and Radioactive Waste Management Division

2/21

> Mailing address: 2 rue André-Pascal, 75775 Paris Cedex 16, France
> Office address: Le Seine Saint-Germain, 12 Boulevard des Iles, 92130
Issy-les-Moulineaux, France
> Email: john.stein@oecd.org<<mailto:john.stein@oecd.org>> / Tel: +33 (0)1
45 24 10 41 / Fax: +33 (0)1 44 30 61 11

> Update your bookmarks!

> On 1 December 2010, the NEA is moving to:

> www.oecd-nea.org<<http://www.oecd-nea.org/>>

>

>

> Best Wishes for 2011! / Meilleurs voeux pour 2011

!<<http://www.oecd.org/dataoecd/13/39/46769567.html?contentId=46769568>>

>

>

From: [Grobe, Jack](#)
To: [Haney, Catherine](#)
Subject: Re: 2 From NMSS available with BWR Experience
Date: Monday, March 14, 2011 10:27:59 AM

Not necessarily. Eric just wanted to know if we would have to get a quick turnaround for a new passport on the proposed folks. Nader indicated that we could get 24 hour turnaround on an expired passport if necessary. Eric asked that in addition to technical quals if we include whether the passport was current.

Jack Grobe, Deputy Director, NRR

From: Haney, Catherine
To: Grobe, Jack
Sent: Mon Mar 14 10:20:05 2011
Subject: RE: 2 From NMSS available with BWR Experience

Will do.

Does this mean there is high likelihood they will be going?

From: Grobe, Jack
Sent: Monday, March 14, 2011 9:46 AM
To: Meighan, Sean; Haney, Catherine
Subject: Fw: 2 From NMSS available with BWR Experience

Cathy

Please also get Sean passport information.
Jack Grobe, Deputy Director, NRR

From: Haney, Catherine
To: Leeds, Eric; Grobe, Jack; Boger, Bruce
Sent: Mon Mar 14 08:15:08 2011
Subject: 2 From NMSS available with BWR Experience

Lawrence is a licensed operator on this type of plant (SOP 3938). He also taught degraded core cooling post TMI.

Aby has severe accident experience for this type of unit.

I don't know if I'll be able to listen in to the 9:30 call. Just wanted you to know both are available if you need them to go to Japan.

2/22

From: [Rodgers, Mary](#)
To: [Dorman, Dan](#); [Haney, Catherine](#); [Kinneman, John](#); [Kokajko, Lawrence](#); [Ordaz, Vonna](#); [Doolittle, Elizabeth](#); [Ford, William](#); [Smith, James](#); [Smith, Shawn](#); [White, Bernard](#); [Bailey, Marissa](#); [Davis, Jack](#); [Mohseni, Aby](#); [Tschiltz, Michael](#); [Weaver, Doug](#)
Subject: NMSS Routing: NRC Press Release #1 through 5 - Japan Event Earthquake/Tsunami
Date: Monday, March 14, 2011 7:33:41 AM
Attachments: [Press Release 1.pdf](#)
[Press Release 2.pdf](#)
[Press Release 3.pdf](#)
[Press Release 4.pdf](#)
[Press Release 5.pdf](#)

From: OST03 HOC
Sent: Sunday, March 13, 2011 3:09 PM
To: DOI; DTRA; chardin; rfraass@crupd.org; james.d.lloyd@nasa.gov; PN_Distribution; FDA; State Dept; White House Sit Room; Bernie Beaudin; Canadian Nuclear Safety Commission (CNSC); eoc2@cnsccsn.gc.ca; DOEHQEOC@OEM.DOE.GOV; fldr-nrc@comdt.uscg.mil; EOC.EPAHQ@EPAMAIL.EPA.GOV; Lawrence Koleff; SIOC; FEMA-operations-center@dhs.gov; Health Canada Operations Center; IAEA Emergency Response Unit; USDA; Screnci, Diane; Sheehan, Neil; Dricks, Victor; Clifford, James; Gamberoni, Marsha; Heater, Keith; Holian, Brian; Kay Gallagher; Kinneman, John; Lew, David; Nick, Joseph; ODaniell, Cynthia; Powell, Raymond; R1 IRC; Roberts, Darrell; Thompson, Margaret; Davenport, Patricia; McCallie, Karen; Miles, Patricia; Quinones-Navarro, Joylynn; R2 IRC; Rudisail, Steven; R3 IRC; Smith, Desiree; Alferink, Beth; Andrews, Tom; Howell, Linda; R4 IRC
Subject: NRC Press Release #1 through 5 - Japan Event Earthquake/Tsunami

*****Event Information is Attached*****

The NRC is responding to an event.

Please contact the NRC Executive Support Team if necessary at 301-816-5100 or reply to this e-mail.

2/23



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200

Washington, D.C. 20555-0001

E-mail: opa.resourcc@nrc.gov Site: www.nrc.gov

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No. 11-042

March 11, 2011

NRC MONITORS NOTICE OF UNUSUAL EVENT AT DIABLO CANYON POWER PLANT, TSUNAMI ISSUES

The U.S. Nuclear Regulatory Commission, through its regional office in Arlington, Tex., is monitoring a notice of unusual event (NOUE) at the Diablo Canyon Power Plant, located near San Luis Obispo, Calif. Senior NRC officials are working at the agency's Rockville, Md., headquarters to coordinate NRC activities with respect to the Japanese earthquake and subsequent tsunami.

"The NRC is closely monitoring this situation as it unfolds with respect to nuclear facilities within the United States. NRC staff is working closely with its resident inspectors who are on site to ensure safe operations," said NRC Chairman Gregory Jaczko.

Pacific Gas and Electric Co. (PG&E), operator of the Diablo Canyon two-reactor plant, declared a precautionary NOUE Unusual Event at 4:23 a.m. EST today after receiving a tsunami warning from the West California Emergency Management Agency. The tsunami warning was generated after an estimated 8.9 magnitude earthquake occurred off the eastern Japanese coast.

The licensee reported the Diablo Canyon plant is stable and both units remain on line. The plant is well protected against tsunami conditions as required by NRC regulations. The NRC has staff at the plant keeping track of the plant's response.

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 also monitoring 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. Site personnel have informed the NRC they are prepared for possible tsunami effects.

###

News releases are available through a free *listserv* subscription at the following Web address: <http://www.nrc.gov/public-involve/listserver.html>. The NRC homepage at www.nrc.gov also offers a SUBSCRIBE link. E-mail notifications are sent to subscribers when news releases are posted to NRC's Web site.



NRC NEWS

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Washington, D.C. 20555-0001

E-mail: opa.resource@nrc.gov Site: www.nrc.gov

Blog: <http://public-blog.nrc-gateway.gov>

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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No. 11-044

March 12, 2011

NRC IN COMMUNICATION WITH JAPANESE REGULATORS

Officials at Nuclear Regulatory Commission headquarters in Rockville, Md., have spoken with the agency's counterpart in Japan, offering the assistance of U.S. technical experts. Should the Japanese want to make use of this expertise, NRC staffers with extensive background in boiling-water reactors are available to assist ongoing efforts.

The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response. The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States. The NRC's headquarters Operations Center is operating on a 24-hour basis.

U.S. 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 estimated for the site and surrounding area.

For background information on generic operations at a boiling-water reactor, including an animated graphic, visit the NRC's website at www.nrc.gov.

###

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No. 11-045

March 12, 2011

NRC EXPERTS DEPLOY TO JAPAN AS PART OF U.S. GOVERNMENT RESPONSE

Two officials from the U.S. Nuclear Regulatory Commission with expertise in boiling water nuclear reactors have deployed to Japan as part of a U.S. International Agency for International Development (USAID) team. USAID is the federal government agency primarily responsible for providing assistance to countries recovering from disaster administering.

“We have some of the most expert people in this field in the world working for the NRC and we stand ready to assist in any way possible,” said Chairman Gregory Jaczko.

The NRC has stood up its Maryland-based headquarters Operations Center since the beginning of the emergency in Japan, and is operating on a 24-hour basis.

The NRC will not provide information on the status of that country’s nuclear power plants. Check the NRC web site or blog for the latest information on NRC actions. Other sources of information include:

USAID -- www.usaid.gov

U.S. Dept. of State -- www.state.gov

FEMA -- www.fema.gov

White House -- www.whitehouse.gov

Nuclear Energy Institute --- www.nei.org

International Atomic Energy Agency -- www.iaea.org/press/

For background information on generic operations at a boiling-water reactor, including an animated graphic, visit the NRC’s website at www.nrc.gov.

###

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No. 11-046

March 13, 2011

NRC SEES NO RADIATION AT HARMFUL LEVELS REACHING U.S. FROM DAMAGED JAPANESE NUCLEAR POWER PLANTS

The Nuclear Regulatory Commission is coordinating with the Department of Energy and other federal agencies in providing whatever assistance the Japanese government requests as they respond to conditions at several nuclear power plant sites following the March 11 earthquake and tsunami. The NRC has sent two boiling-water reactor experts to Japan as part of a U.S. Agency for International Development team.

In response to nuclear emergencies, the NRC works with other U.S. agencies to monitor radioactive releases and predict their path. All the available information indicates weather conditions have taken the small releases from the Fukushima reactors out to sea away from the population. Given the thousands of miles between the two countries, Hawaii, Alaska, the U.S. Territories and the U.S. West Coast are not expected to experience any harmful levels of radioactivity.

During a nuclear event the NRC has requirements to protect populations around reactors. For instance, the U.S. evacuation standard at 10 miles is roughly equivalent to the 20-kilometer distance recommended in some instances in Japan. The United States also uses sheltering in place and potassium iodide, protective measures also available in Japan.

The NRC will not comment on hour-to-hour developments at the Japanese reactors. This is an ongoing crisis for the Japanese who have primary responsibility.

###

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From: [Cianci, Sandra](#)
To: [Haney, Catherine](#); [Miller, Charles](#)
Cc: [Walker, Dwight](#); [Casby, Marcia](#)
Subject: FW: FIRM - Meeting w/Chairman re: prep for March 16th Congressional Hearing
Date: Monday, March 14, 2011 8:17:26 AM
Attachments: [FIRM - Meeting wChairman re prep for March 16th Congressional Hearing.msg](#)
Importance: High

Cathy/Charlie,

Good Morning. Mike covered the night shift in the Ops center, he will be out of the office today.

At this time, we are moving forward with the Chairman's briefing for the March 16th Congressional Hearing, scheduled today at 1pm. Please attend on Mike's behalf, I have background information available.

Please let me know if you have any questions.

Thank you

Sandy Cianci
Administrative Assistant to Marty Virgilio, DEDR
Office of the Executive Director for Operations
O-17 H13
301-415-1714
sandra.cianci@nrc.gov

2/24

Attachment FIRM - Meeting wChairman re prep for March 16t.msg (2560 Bytes) cannot be converted to PDF format.

From: Moore, Wendy
To: Haney, Catherine
Cc: Walker, Dwight
Subject: Phone Message
Date: Monday, March 14, 2011 10:47:16 AM

Jane Kreuter returned your call to Margie. Margie is at the Op Center and won't be able to call you back. Is there anyone else that can assist you? Call Jane on 415-1780 if so.

Wendy

Wendy Moore
Administrative Assistant
NRC
Office of Nuclear Material Safety and Safeguards
Division of Fuel Cycle Safety and Safeguards
M/S E2-C40M
301-492-3410

2/25

From: [Jacobs-Baynard, Elizabeth](#)
To: [Haney, Catherine](#)
Cc: [Walker, Dwight](#); [Jacobs-Baynard, Elizabeth](#)
Subject: RE: Rescheduling Prep Meetings with DEDOs for Congressional Hearing
Date: Monday, March 14, 2011 3:59:29 PM
Importance: High

Cathy:

Should I include the Enclosure 3, on Waste Confidence and EST as background for the briefing package that goes to the staffers tomorrow to brief the Chairman on FY 2012 or should that document be held as separate for you only? Dwight did send the document to me electronically. Thanks,

Liz

From: Cianci, Sandra
Sent: Monday, March 14, 2011 3:52 PM
To: Walker, Dwight; Casby, Marcia
Cc: Weber, Michael; Miller, Charles; Haney, Catherine; Jacobs-Baynard, Elizabeth; Muesle, Mary; Taylor, Renee
Subject: FW: Rescheduling Prep Meetings with DEDOs for Congressional Hearing
Importance: High

Marcia/Dwight,

Please ensure Charlie and Cathy are available tomorrow to support Bill Borchardt at the Chairman Prep meeting scheduled 9:30am-10:00am – Chairman's Office

Thank you

Sandy Cianci

*Administrative Assistant to Marty Virgilio, DEDR
Office of the Executive Director for Operations
O-17 H13
301-415-1714
sandra.cianci@nrc.gov*

From: Weber, Michael
Sent: Monday, March 14, 2011 3:26 PM
To: Cianci, Sandra
Cc: Muesle, Mary; Taylor, Renee; Jacobs-Baynard, Elizabeth
Subject: Response - Rescheduling Prep Meetings with DEDOs for Congressional Hearing

Z/26

Yes, please prepare them to support Bill.

Thanks

From: Cianci, Sandra
To: Weber, Michael
Sent: Mon Mar 14 15:20:10 2011
Subject: FW: Rescheduling Prep Meetings with DEDOs for Congressional Hearing

Mike,

Bill is covering the Chairman prep meeting on your behalf. Would you like Cathy and Charlie to attend as well?

Sandy

From: Pace, Patti
Sent: Monday, March 14, 2011 3:04 PM
To: Belmore, Nancy; Quesenberry, Jeannette; Pulley, Deborah; Mayberry, Theresa; Hudson, Sharon; Ellis, Marv; Taylor, Renee; Garland, Stephanie; Cianci, Sandra; Casby, Marcia; Walker, Dwight
Cc: Coggins, Angela; Batkin, Joshua; Dhir, Neha; Gibbs, Catina
Subject: Rescheduling Prep Meetings with DEDOs for Congressional Hearing
Importance: High

Good afternoon,

I have rescheduled the following briefings for the Chairman in advance of the Congressional hearing on Wednesday morning.

Tuesday March 15th
9:00a – 9:30a
Prep Meeting with Marty Virgilio
Chairman's Conference Room

9:30a – 10:00a
Prep Meeting DEDMRT Areas (Mike Weber not available, will be covered by Mr. Borchardt)
Chairman's Conference Room

As before, OCA, OGC, CFO invited to attend as well as TAs from the Commission offices.

Thanks,

Patti Pace
Assistant to Chairman Gregory B. Jaczko
U.S. Nuclear Regulatory Commission
301-415-1820 (office)
301-415-3504 (fax)

From: [Cianci, Sandra](#)
To: [Haney, Catherine](#)
Subject: RE: Rescheduling Prep Meetings with DEDOs for Congressional Hearing
Date: Monday, March 14, 2011 4:03:27 PM

Mike is on day shift tomorrow.

Sandy Cianci

*Administrative Assistant to Marty Virgilio, DEDR
Office of the Executive Director for Operations
O-17 H13
301-415-1714
sandra.cianci@nrc.gov*

From: Haney, Catherine
Sent: Monday, March 14, 2011 3:59 PM
To: Cianci, Sandra
Subject: RE: Rescheduling Prep Meetings with DEDOs for Congressional Hearing

Is Mike on the shift again tonight? I thought Dan Dorman was the ET rep?

From: Cianci, Sandra
Sent: Monday, March 14, 2011 3:52 PM
To: Walker, Dwight; Casby, Marcia
Cc: Weber, Michael; Miller, Charles; Haney, Catherine; Jacobs-Baynard, Elizabeth; Muessle, Mary; Taylor, Renee
Subject: FW: Rescheduling Prep Meetings with DEDOs for Congressional Hearing
Importance: High

Marcia/Dwight,

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Thank you

Sandy Cianci

*Administrative Assistant to Marty Virgilio, DEDR
Office of the Executive Director for Operations
O-17 H13
301-415-1714*

sandra.cianci@nrc.gov

From: Weber, Michael
Sent: Monday, March 14, 2011 3:26 PM
To: Cianci, Sandra
Cc: Muessle, Mary; Taylor, Renee; Jacobs-Baynard, Elizabeth
Subject: Response - Rescheduling Prep Meetings with DEDOs for Congressional Hearing

Yes, please prepare them to support Bill.

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From: Cianci, Sandra
To: Weber, Michael
Sent: Mon Mar 14 15:20:10 2011
Subject: FW: Rescheduling Prep Meetings with DEDOs for Congressional Hearing

Mike,

Bill is covering the Chairman prep meeting on your behalf. Would you like Cathy and Charlie to attend as well?

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Sent: Monday, March 14, 2011 3:04 PM
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As before, OCA, OGC, CFO invited to attend as well as TAs from the Commission offices.

Thanks,

Patti Pace
Assistant to Chairman Gregory B. Jaczko
U.S. Nuclear Regulatory Commission
301-415-1820 (office)
301-415-3504 (fax)

From: [Haney, Catherine](#)
To: [Walker, Dwight](#)
Subject: Morning
Date: Tuesday, March 15, 2011 9:32:30 AM

I took care of work stuff. Am going to try and sleep some more and then head in.

2/27

From: [Haney, Catherine](#)
To: [Kokajko, Lawrence](#); [Ordaz, Vonna](#); [Kinneman, John](#); [Pulliam, Timothy](#)
Subject: FW: Press Release: (Revised) NRC Sends Additional Experts to Assist Japan
Date: Tuesday, March 15, 2011 12:25:00 PM
Attachments: [11-048R.docx](#)

From: OPA Resource

Sent: Tuesday, March 15, 2011 11:41 AM

To: Ash, Darren; Barkley, Richard; Batkin, Joshua; Bell, Hubert; Belmore, Nancy; Bergman, Thomas; Bollwerk, Paul; Bonaccorso, Amy; Borchardt, Bill; Bozin, Sunny; Brenner, Eliot; Brock, Terry; Brown, Boris; Bubar, Patrice; Burnell, Scott; Burns, Stephen; Carpenter, Cynthia; Chandrathil, Prema; Clark, Theresa; Collins, Elmo; Couret, Ivonne; Crawford, Carrie; Cutler, Iris; Dacus, Eugene; Dapas, Marc; Davis, Roger; Dean, Bill; Decker, David; Dricks, Victor; Droggitis, Spiros; Flory, Shirley; Franovich, Mike; Gibbs, Catina; Haney, Catherine; Hannah, Roger; Harbuck, Craig; Harrington, Holly; Hasan, Nasreen; Hayden, Elizabeth; Holahan, Gary; Holahan, Patricia; Holian, Brian; Jacobssen, Patricia; Jaczko, Gregory; Jasinski, Robert; Jenkins, Verlyn; Johnson, Michael; Jones, Andrea; Kock, Andrea; Kotzalas, Margie; Ledford, Joey; Lee, Samson; Leeds, Eric; Lepre, Janet; Lew, David; Lewis, Antoinette; Loyd, Susan; Magwood, William; McCrary, Cheryl; McGrady-Finneran, Patricia; McIntyre, David; Mensah, Tanya; Mitlyng, Viktoria; Monninger, John; Montes, David; Nieh, Ho; Ordaz, Vonna; Ostendorff, William; Owen, Lucy; Powell, Amy; Quesenberry, Jeannette; Reddick, Darani; Regan, Christopher; Reyes, Luis; Riddick, Nicole; RidsSecyMailCenter Resource; Riley (OCA), Timothy; Rohrer, Shirley; Samuel, Olive; Satorius, Mark; Schaaf, Robert; Schmidt, Rebecca; Scott, Catherine; Screnci, Diane; Shaffer, Vered; Shane, Raeann; Sharkey, Jeffrey; Sheehan, Neil; Sheron, Brian; Siurano-Perez, Osiris; Steger (Tucci), Christine; Svinicki, Kristine; Tabatabai, Omid; Tannenbaum, Anita; Taylor, Renee; Temp, WDM; Thomas, Ann; Uhle, Jennifer; Uselding, Lara; Vietti-Cook, Annette; Virgilio, Martin; Virgilio, Rosetta; Walker-Smith, Antoinette; Weaver, Doug; Weber, Michael; Weil, Jenny; Werner, Greg; Wiggins, Jim; Williams, Evelyn; Zimmerman, Roy; Zorn, Jason

Subject: Press Release: (Revised) NRC Sends Additional Experts to Assist Japan

Attached to be released in approximately 15 minutes.

Office of Public Affairs
US Nuclear Regulatory Commission
301-415-8200
opa.resource@nrc.gov

2/28

REVISED: NRC SENDS ADDITIONAL EXPERTS TO ASSIST JAPAN

The NRC has sent nine additional experts to Tokyo to provide assistance as requested by the Japanese government. Acting as part of a U.S. Agency for International Development assistance team, the NRC has dispatched the experts to Tokyo to provide assistance as requested by the Japanese government.

The first members of the team left the United States Monday evening and were due to arrive in Tokyo Wednesday afternoon. The team includes additional reactor experts, international affairs professional staffers, and a senior manager from one of the NRC's four operating regions.

The team members come from the NRC's headquarters in Rockville, Md., and from offices in King of Prussia, Pa., Chattanooga, Tenn., and Atlanta. The team has been instructed to: conduct all activities needed to understand the status of efforts to safely shut down the Japanese reactors; better understand the potential impact on people and the environment of any radioactivity releases; if asked, provide technical advice and support through the U.S. ambassador for the Japanese government's decision making process; and draw on NRC-headquarters expertise for any other additional technical requirements. The team will be in communication with the Japanese regulator, the U.S. Embassy, NRC headquarters, and other government stakeholders as appropriate.

The team is led by Charles A. Casto, deputy regional administrator of the NRC's Center of Construction Inspection, based in NRC's office in Atlanta. Casto has worked in the commercial nuclear power industry at three different nuclear power plants, including Browns Ferry, which has three boiling water reactors, operated by the Tennessee Valley Authority in Alabama. He has also worked as a licensed reactor operator and operator instructor. Casto will provide a single point of contact for the U.S. Ambassador in Japan on nuclear reactor issues.

The two reactor experts sent Saturday to Japan will participate as members of this assistance team.

Note To Editors: Revision reflects an additional team member, there are now a total of 11 NRC staffers on the assistance team.

###

News releases are available through a free *listserv* subscription at the following Web address: <http://www.nrc.gov/public-involv/listserv.html>. The NRC homepage at www.nrc.gov also offers a SUBSCRIBE link. E-mail notifications are sent to subscribers when news releases are posted to NRC's website.

From: [McCartin, Timothy](#)
To: [Haney, Catherine](#); [Kokajko, Lawrence](#)
Subject: RE: Near Term Task List for Week of March 14, 2011
Date: Tuesday, March 15, 2011 4:04:09 PM

Not sure how that got put in that way – the EDATS ticket giving us direction states it is for EDO signature

From: Haney, Catherine
Sent: Tuesday, March 15, 2011 3:42 PM
To: Kokajko, Lawrence; McCartin, Timothy
Subject: FW: Near Term Task List for Week of March 14, 2011

Look at the first item on the attached file. Looks like the direction was for me to sign out the letter to GAO? Can you check into this. No need to bother OEDO if we don't have to.

From: Wallace, Denise
Sent: Monday, March 14, 2011 4:39 PM
To: EDO_DODs_DRAs; RidsAdmMailCenter Resource; RidsCsoMailCenter Resource; RidsFsmeOd Resource; RidsHrMailCenter Resource; RidsNmssOd Resource; RidsNroMailCenter Resource; RidsNrrMailCenter Resource; RidsNsirMailCenter Resource; RidsOeMailCenter Resource; RidsOiMailCenter Resource; RidsOIS Resource; RidsResOd Resource; RidsResPmdaMail Resource; RidsRgn1MailCenter Resource; RidsRgn2MailCenter Resource; RidsRgn3MailCenter Resource; RidsRgn4MailCenter Resource; RidsSbcrMailCenter Resource; EDO Distribution
Subject: Near Term Task List for Week of March 14, 2011

OEDO is continuing to make distribution for the NTTL within OEDO as well as to the OEDO Office Directors (ODs), Regional Administrators (RAs), Deputy ODs and RAs, and the OEDO office's Rids boxes. This list is updated daily within OEDO and is distributed once a week.

2/29

From: [Leeds, Eric](#)
To: [Haney, Catherine](#)
Cc: [Dorman, Dan](#); [Tschiltz, Michael](#); [Evans, Michele](#)
Subject: RE: Need NMSS help!
Date: Tuesday, March 15, 2011 3:45:11 PM

Understand both you and Dan have been pulling shifts. I really appreciate Mike giving us some help! I think Michele Evans has gotten involved also.

Thanks, NMSS!

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

From: Haney, Catherine
Sent: Tuesday, March 15, 2011 3:39 PM
To: Leeds, Eric
Cc: Dorman, Dan; Tschiltz, Michael
Subject: RE: Need NMSS help!

Eric,
Sorry I didn't get back to you sooner. I just saw this message.

Mike is available to help. He had been working with Jeff Temple in the Ops Center over the weekend and will contact Jeff to discuss current needs.

Let us know if there is someone else Mike should be working with.

Cathy

From: Leeds, Eric
Sent: Monday, March 14, 2011 5:06 PM
To: Haney, Catherine; Dorman, Dan
Subject: Need NMSS help!

Cathy/Dan –

I need your help. The Op Center watch bill has Tom Blount and Tim McGinty, along with Mark Lombard, running the Liaison Team. Both Tom and Tim are the management for the same division in NRR – it's a bad situation compounded by the 2.206 petitions we're receiving to shutdown all the plants due to the Japanese experience, which their division is responsible for handling. Mike Tschiltz is also qualified to stand that watch. Can I get him to replace either McGinty or Blount for the rest of the week? Any help will be greatly appreciated.

Thanks!

Eric J. Leeds, Director

Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

From: Rodgers, Mary
To: Dorman, Dan; Haney, Catherine; Kinneman, John; Kokajko, Lawrence; Ordaz, Vonna; Bailey, Marissa; Davis, Jack; Mohseni, Aby; Tschiltz, Michael; Weaver, Doug; Doolittle, Elizabeth; Ford, William; Smith, James; Smith, Shawn; White, Bernard
Subject: 2 RealEvent; Press releases
Date: Tuesday, March 15, 2011 9:19:52 AM
Attachments: Real Event NRC Press Release #7 - Japan Event EarthquakeTsunami.msg
Real Event NRC Press Release #6 - Japan Event EarthquakeTsunami.msg

Attachment Real Event NRC Press Release #7 - Japan Event .msg (2560 Bytes) cannot be converted to PDF format.

Muessle, Mary

From: Muessle, Mary
Sent: Tuesday, March 15, 2011 6:03 PM
To: Rheume, Cynthia; Mitchell, Reggie; Givvines, Mary
Cc: Matheson, Mary
Subject: RE: Capturing time for supporting Japan

Thanks Cindy. I believe that OCFO sent the TAC out to T & L coordinators today.

Mary Muessle
Assistant for Operations - Acting
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1703 office
301-415-2700 fax

From: Rheume, Cynthia
Sent: Tuesday, March 15, 2011 6:01 PM
To: Mitchell, Reggie; Muessle, Mary; Givvines, Mary
Cc: Matheson, Mary
Subject: RE: Capturing time for supporting Japan

To All – NSIR has been using the TAC # established below. I would suggest all of us use the same TAC, however OCFO may have reason to do it differently. I suggest the TAC guidance be issued along with the HR guidance on overtime, pay caps, etc. that has already been drafted.

Thanks,
Cindy

From: Howard, Tabitha
Sent: Friday, March 11, 2011 10:25 PM
To: Morris, Scott; McDermott, Brian; Ross-Lee, MaryJane; Correia, Richard; Grant, Jeffery; 'Joseph.Himes@nrc.gov'; Campbell, Stephen; McMurtray, Anthony; Gott, William; Marshall, Jane; Waig, Gerald; Jolicoeur, John; Bower, Anthony; 'Zahira.Cruz-Perez@nrc.gov'; Reed, Wendy; Schrader, Eric; DiFrancesco, Nicholas; Carlson, Donald; Rubin, Stuart; Arndt, Steven; Jackson, Karen; Stransky, Robert; Khan, Omar; Figueroa, Roberto; Hickman, John; Karas, Rebecca; Kratchman, Jessica; Scarbrough, Thomas; Salus, Amy; Williamson, Linda; Crutchley, Mary Glenn; Manahan, Michelle; Larson, Emily; Howard, Tabitha; Wimbush, Andrea; Meyer, Karen; Levine, Michael; Guzzetta, Ashley; 'Darrel.Burrell@nrc.gov'; Fiske, Jonathan; Anderson, James; Perin, Vanice; Mroz (Sahm), Sara; Chen, Yen-Ju; Pope, Tia; 'Christine.Merritt@nrc.gov'; Stang, Annette; Hurd, Sapna
Subject: Incident Response: Japan Earthquake and Tsunami Drill

Good evening,

If you have participated in the "Japan Earthquake and Tsunami Drill" that began today (Friday March 11, 2011), please be sure to apply your time spent on this activity to the TAC Number listed below:

D92374 – Incident Response: Japan Earthquake and Tsunami Drill

If your time has already been approved please see myself or acting T&L Coordinator Bridget Curran in order to do a corrected card

Thanks, Tabitha

From: Mitchell, Reggie
Sent: Tuesday, March 15, 2011 1:57 PM
To: Muessle, Mary; Givvines, Mary
Cc: Matheson, Mary; Kaplan, Michele; Rheaume, Cynthia
Subject: RE: Capturing time for supporting Japan

All,

Mary Matheson is taking this for action. Communications is forthcoming that will direct the staff to use a dedicated TAC for capturing time spent in response to the Japan event.

Reggie

Reginald W. Mitchell, Controller
Office of the Chief Financial Officer
U.S. Nuclear Regulatory Commission
Reggie.Mitchell@nrc.gov
301-415-7379
T-9 F-14

From: Muessle, Mary
Sent: Tuesday, March 15, 2011 10:25 AM
To: Givvines, Mary
Cc: Mitchell, Reggie; Matheson, Mary
Subject: RE: Capturing time for supporting Japan

I put a call into Reggie and sent him an email. Mary M is out, and I can't remember who the TAC person is.

Mary Muessle
Assistant for Operations - Acting
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1703 office
301-415-2700 fax

From: Givvines, Mary
Sent: Tuesday, March 15, 2011 10:10 AM
To: Muessle, Mary
Subject: RE: Capturing time for supporting Japan

Good idea. Will you be checking or did you want me to? I agree we should use the same TAC.

From: Muessle, Mary
Sent: Tuesday, March 15, 2011 10:09 AM
To: Givvines, Mary
Subject: RE: Capturing time for supporting Japan

Mary
Generally, they open a TAC in the op's center for an event. Let's see if they have done so yet.

The other Mary

Mary Muesle
Assistant for Operations - Acting
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1703 office
301-415-2700 fax

From: Givvines, Mary
Sent: Tuesday, March 15, 2011 10:08 AM
To: Virgilio, Martin
Cc: Dyer, Jim; Muesle, Mary; Grobe, Jack; Leeds, Eric; Boger, Bruce
Subject: Capturing time for supporting Japan

Good morning Marty,

I know many of us are busy supporting the Japan situation; however, do you think it would be a good idea for staff across the agency to start capturing the time spent supporting this effort since it will be significant? As you know, most international activities fall under the 10% appropriation.

We were going to take action to make this happen in NRR but we believe it should be captured agency-wide. If you agree, I can work with Mary Muesle to establish a TAC and issue an announcement from the EDO office?

Thoughts?

Mary Givvines

*Director, Program Management, Policy Development and Analysis Staff
Office of the Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
(301) 415-1275; Mary.Givvines@nrc.gov*

Weber, Michael

From: Weber, Michael
Sent: Tuesday, March 15, 2011 6:30 PM
To: Haney, Catherine
Cc: LIA05 Hoc
Subject: RESPONSE - Shipments

Thanks

Liaison Team – note that shipments of nuclear material may be disrupted on their way to Japan for a variety of reasons.

From: Horn, Brian
Sent: Tuesday, March 15, 2011 10:52 AM
To: Habighorst, Peter
Subject: FW: Shipments

Peter:

FYI.

Here is some information concerning a previously scheduled shipments of natural uranium to Japan.

Brian

From: Owens, Janice
Sent: Tuesday, March 15, 2011 10:48 AM
To: Collins, Chiquita
Cc: Shepherd, Jill; Mayros, Lauren; Horn, Brian; AdvanceNotifications Resource; Foreign Obligations
Subject: Shipments

Lori Southern, Cameco called and said they were cancelling the transshipment from Canada through the US to Japan and will be notifying you. (I received her email.)

Dan Noss, AREVA expects to be able to provide us with more information today on the shipment scheduled to arrive in Tokyo. He is also waiting for more information on the operational status of the Nuclear Fuel Industries Ltd. (NFI) fuel fabrication facilities. His understanding is that NFI Kumatori is or will be operational soon and that NFI Tokai was shut down and possibly damaged, but he did not know to what extent

OIP is drafting a short email message to licensees with active and/or pending licenses to export low enriched uranium to Japan to advise them that they may need to delay shipments to certain Japanese fuel fabrication facilities and/or reactors pending receipt of additional information on their operating status.

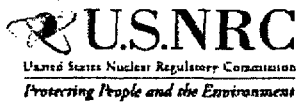
Thank you for contacting OIP regarding the advance notifications you received. We will keep each other posted as this unfolds.

Janice

Janice E. Owens
Branch Chief, Export Controls and International Organizations
Office of International Programs
U.S. Nuclear Regulatory Commission
301-415-3684
301-415-2395 (fax)

2/32

Janice.Owens@nrc.gov



Rihm, Roger

From: Rihm, Roger
Sent: Tuesday, March 15, 2011 1:27 PM
To: Raaum, Darrin; Giitter, Joseph
Cc: Howe, Allen; Nelson, Robert
Subject: FW: haven't heard anything from you

Importance: High

Looks like "all quiet" from the Chairman's office – at least for now.

Darrin – if we get late changes today, who should I deal with (will anyone still be here at that time)?

Joe – No feedback on your table, so I guess I just await a more complete version from you. (Caveats, etc from your other emails had been passed along with the earlier version.)

Thanks to all!

From: Marshall, Michael
Sent: Tuesday, March 15, 2011 1:12 PM
To: Rihm, Roger
Subject: RE: haven't heard anything from you

Roger,

I believe so. I did not get a chance to share it with the Chairman. His prep meeting was pushed back to 4:30 pm or 5:00 pm today.

I have had no contact with Joe G.

If any more comes up, please, give it directly to OCA, because they have lead in assembling prep material.

Roger, thanks for the help in pulling things together.

Michael L. Marshall, Jr.
Policy Advisor for Reactors
Office of the Chairman
U.S. Nuclear Regulatory Commission

Phone: 301-415-1750
Email: michael.marshall@nrc.gov

From: Rihm, Roger
Sent: Tuesday, March 15, 2011 12:52 PM
To: Marshall, Michael
Subject: haven't heard anything from you
Importance: High

Is graphic OK? Also haven't seen anything more (complete) from Joe G. Have you been in contact with him at all?

Let me know if there is more I need to do.

2/33

Rihm, Roger

From: Rihm, Roger
Sent: Tuesday, March 15, 2011 2:06 PM
To: Mahoney, Michael
Subject: RE: Safe Shutdown Earthquake/Operating Basis Earthquake Data

Please review definitions at the end of the table – seem to be some disconnects in text.

From: Mahoney, Michael
Sent: Tuesday, March 15, 2011 1:14 PM
To: Rihm, Roger; Marshall, Michael
Cc: Meighan, Sean; Gitter, Joseph
Subject: Safe Shutdown Earthquake/Operating Basis Earthquake Data

Attached is the Safe Shutdown Earthquake/Operating Basis Earthquake Data. We are still working on the tsunami/flooding column.

Mike

Michael Mahoney

Davis-Besse, Perry and FENOC Fleet Project Manager, Licensing Branch III-2
U. S. Nuclear Regulatory Commission
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
Phone: (301)415-3867
Email: Michael.Mahoney@NRC.GOV



Rihm, Roger

From: Rihm, Roger
Sent: Tuesday, March 15, 2011 2:07 PM
To: Mahoney, Michael
Cc: Meighan, Sean; Giitter, Joseph
Subject: RE: Safe Shutdown Earthquake/Operating Basis Earthquake Data

Importance: High

OCA has requested a "final" version to take to the hill with the Chairman @ 3PM. Can do????

From: Mahoney, Michael
Sent: Tuesday, March 15, 2011 1:14 PM
To: Rihm, Roger; Marshall, Michael
Cc: Meighan, Sean; Giitter, Joseph
Subject: Safe Shutdown Earthquake/Operating Basis Earthquake Data

Attached is the Safe Shutdown Earthquake/Operating Basis Earthquake Data. We are still working on the tsunami/flooding column.

Mike

Michael Mahoney

Davis-Besse, Perry and FENOC Fleet Project Manager, Licensing Branch III-2

U. S. Nuclear Regulatory Commission

Division of Operating Reactor Licensing

Office of Nuclear Reactor Regulation

Phone: (301)415-3867

Email: Michael.Mahoney@NRC.GOV



Rihm, Roger

From: Rihm, Roger
Sent: Tuesday, March 15, 2011 8:22 AM
To: Giitter, Joseph
Subject: RE: Clarifying Questions on the Table

Importance: High

Joe, hopefully you saw the clarifying email from Michael Marshall. Sorry I couldn't get you 2 on the same email trail, but I couldn't get your address to come up on my BBerry!

In terms of how the Chairman is planning to use this info, I think that's sort of TBD until he sees what you are able to produce, how it looks, and what it means to him. For example, we had asked Annie for a graphic that, upon discussion with the Chairman, he decided he didn't want produced because it was going to be too complicated to understand.

Please just do the best you can. It would probably be preferable to send a partial product of whatever you have produced by about 9:45, so I can vet with Michael M and the Chairman while you continue to work. It is possible that decisions on proceeding might be made upon review of a partial product.

Thanks!

From: Giitter, Joseph
Sent: Monday, March 14, 2011 9:47 PM
To: Rihm, Roger
Cc: Howe, Allen; Nelson, Robert; Hiland, Patrick; Kammerer, Annie; Stutzke, Martin
Subject: Clarifying Questions on the Table

I cc'd you on an earlier e-mail. I wasn't sure what you meant by reference level earthquake. Did you mean review level earthquake? Also, I wondered how the Chairman was planning to use this information. The design basis is usually expressed in terms of ground acceleration (horizontal) with a more complete description in terms of a curve showing acceleration versus frequency. However, you wouldn't be able to infer what level earthquake (for example, on the Richter Scale) the plant would handle without the soil characteristics, etc. Sorry if I'm being pedantic--I just want to make sure we give you what you're looking for.

Also, I could anticipate that the Chairman might get a question about whether the NRC licensed coastal plants are designed for a design basis earthquake in combination with a maximum probable tsunami. Let me know if you need that information.



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200

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Blog: <http://public-blog.nrc-gateway.gov>

No. 11-049

March 15, 2011

NRC ANALYSIS CONTINUES TO SUPPORT JAPAN'S PROTECTIVE ACTIONS

NRC analysts overnight continued their review of radiation data related to the damaged Japanese nuclear reactors. The analysts continue to conclude the steps recommend by Japanese authorities parallel those the United States would suggest in a similar situation.

The Japanese authorities Monday recommended evacuation to 20 kilometers around the affected reactors and said that persons out to 30 kilometers should shelter in place.

Those recommendations parallel the protective actions the United States would suggest should dose limits reach 1 rem to the entire body and 5 rem for the thyroid, an organ particularly susceptible to radiation uptake. The currently reported Japanese radiation measurements are well below these guidelines.

A rem is a measure of radiation dose. The average American is exposed to approximately 620 millirems, or 0.62 rem, of radiation each year from natural and manmade sources.

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Merzke, Daniel

From: Merzke, Daniel
Sent: Wednesday, April 13, 2011 12:53 PM
To: Andersen, James
Subject: RE: Release of Global Assessment to the CAs

Nobody gave us a deadline for providing the document. I'd just as soon wait to see if we can get it tomorrow. I haven't heard anyone today asking for it. I already passed the one document to them and told them I was working on the GA document and would pass it along when I got it.

From: Andersen, James
Sent: Wednesday, April 13, 2011 12:38 PM
To: Merzke, Daniel
Subject: RE: Release of Global Assessment to the CAs

Lets respond and say the site team is modifying the document based on senior management comments. We expect a draft document tomorrow and will provide then. Or something like that. Maybe that will keep the e-mails down for a day. Thoughts?

Jim A.

From: Merzke, Daniel
Sent: Wednesday, April 13, 2011 12:34 PM
To: Andersen, James
Subject: FW: Release of Global Assessment to the CAs

Jim, I'm really struggling with getting this Global Assessment. Marty said we could provide it, as long as we throw in the caveat that it's draft, and Mike's e-mail below seems to indicate he supports release of the draft, but it seems the ET is still unwilling. I told Michael Dudek to give the site team another day to work on it, and hopefully we'll be able to get a copy tomorrow.

Dan

From: Dudek, Michael
Sent: Wednesday, April 13, 2011 11:44 AM
To: Merzke, Daniel
Subject: RE: Release of Global Assessment to the CAs

Dan,

There seems to be a lot of confusion regarding the "Global Assessment" document. It appears that this document is not ready for distribution. The Japan Team (who is asleep right now) has the document and has the tasking of updating it in accordance with senior management's comments. Please see Mr. Weber's e-mail below about the document.

Thoughts?

Michael Dudek | Technical Assistant | NSIR/Division of Preparedness & Response | U.S. NRC
11555 Rockville Pike, Rockville, MD 20852 | ☎ (301) 415-6500 | ✉ Michael.Dudek@nrc.gov

From: Dyer, Jim
Sent: Tuesday, April 12, 2011 3:07 PM
To: Weber, Michael

Subject: RE: RESPONSE - Follow up to Document Request from Commissioner Assistants Briefing on Japan Sunday April 10

Mike,

I listed these activities as those that we were working on; most aren't ready for release. jim

From: Weber, Michael

Sent: Tuesday, April 12, 2011 2:00 PM

To: Vietti-Cook, Annette

Cc: Bubar, Patrice; Muessle, Mary; ET05 Hoc; ET01 Hoc; OST02 HOC; FOIA Response.hoc Resource; Andersen, James; Dyer, Jim

Subject: RESPONSE - Follow up to Document Request from Commissioner Assistants Briefing on Japan Sunday April 10

Mary is working on this with the Ops Center, so we should be able to provide the documents promptly. One clarification that I would offer – Chuck Casto and the Japan Site Team are developing slides on the global assessment. I'm not aware that a "Global Assessment" exists at this time; I understand that it is being developed, but it is quite preliminary. In addition, we do not know whether Chuck and the team will have the opportunity to interact with the Secretary of State, let alone share with her the Global Assessment. Consequently, in response to the first request, we can provide the first draft of slides on the Global Assessment, recognizing that they are quite preliminary and have not been fully vetted. The other two requests should be easily fulfilled.

From: Vietti-Cook, Annette

Sent: Tuesday, April 12, 2011 10:33 AM

To: Muessle, Mary; ET05 Hoc

Cc: Weber, Michael; Bubar, Patrice

Subject: Follow up to Document Request from Commissioner Assistants Briefing on Japan Sunday April 10

I have been asked by the Commission offices to follow up on a document request from the Subject Commissioner Assistants Briefing on Japan. The Commission offices requested documents that are being shared with other agencies and were referred to on the call:

Global Assessment that will be shared with Secretary Clinton as part of her visit

Criteria for temporary reentry into the evacuation zone

Criteria for permanent reentry into the evacuation zone

Can you please assist in providing this information to the Commission offices?

From: Doolittle, Elizabeth
To: Haney, Catherine; Dorman, Dan
Cc: Kokaiko, Lawrence; Kinneman, John; Ordaz, Vonna
Subject: LIST OF PUBLIC MEETINGS THIS WEEK AND NEXT
Date: Tuesday, March 15, 2011 12:51:36 PM

1. March 14, 2011, with Nuclear Energy Institute (NEI) to discuss the NRC pilot issue for NEI's Dry Storage Task Force. The pilot issue for the utilizing NEI's Regulatory Issue Resolution Protocol is stress corrosion cracking of storage casks in a marine environment - SFST
2. March 16, 2011, with NAC International to discuss the new application submitted for the Model No. MAGNATRAN transport package - SFST
3. March 17, 2011, with Northern States Power Management (NSPM) and Xcel Energy to discuss the plans of Northern States Power Company, a Minnesota corporation, d/b/a Xcel Energy for submittal of an application to renew the Prairie Island ISFSI site-specific license. SFST
4. March 24, 2011, with Holtec and the NRC staff to discuss the proposed HI-STORM FW dry cask storage system license amendment request No. 1-SFST
5. March 28, 2011 with NEI to obtain external stakeholder feedback regarding regulatory foundation enhancements (inspection, Certificates of Compliance and technical specifications, and NEI 72.48 Guidance Document) SFST
6. March 30, 2011, with Transnuclear, Inc. to discuss TN's proposed new application for the Model No. TN-LC transportation package SFST
7. March 31, 2011, with AREVA to discuss the content and test plan for the Model No. LANL-B transport package - SFST.
8. March 17, 2011, NRC, NEI, Fuel Cycle Licensees and Certificate Holders, Meeting on Fuel Cycle Oversight Enhancements – FCSS.
9. Week of March 21, Bret Leslie moderating - HLWRS

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From: [Bailey, Marissa](#)
To: [Haney, Catherine](#); [Dorman, Dan](#)
Subject: FW: update from GNF-A
Date: Tuesday, March 15, 2011 10:24:56 AM

From: Baker, Merritt
Sent: Tuesday, March 15, 2011 10:23 AM
To: Smith, Brian; Habighorst, Peter; Tschiltz, Michael; Bailey, Marissa; Johnson, Robert; Silva, Patricia
Cc: Rodriguez, Rafael
Subject: update from GNF-A

This morning I received an update from Julie Olivier at GNF-A:

They have established a GE Command Center to assist GNF-J (Global Nuclear Fuel – Japan) and Hitachi with events in Japan. It is NOT in their regular site emergency center, in case a local emergency requires manning it.

They also had a “hard” power outage on Friday, which affected:

PACS (Personnel Access Control System) – as a result, only limited access to the controlled area is allowed

FBS (Fuel Business System (MC&A System)) – as a result, there are no SNM movements. A physical inventory was started. Steps are being performed to recover stored data.

GLE (Global Laser Enrichment) is standalone and is unaffected.

GNF-A hopes to have all systems restored by the end of the day.

The important NRC visitors (John Kinneman, Tony Gody, RII Special Inspection team , Commissioner Apostolakis) have been informed of the status and are OK with the limitations.

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From: [Dorman, Dan](#)
To: [Haney, Catherine](#)
Subject: FW: CANCELED: 9:00AM and 9:30AM Prep Meetings with the Chairman
Date: Tuesday, March 15, 2011 9:13:23 AM
Importance: High

From: Cianci, Sandra
Sent: Tuesday, March 15, 2011 8:57 AM
To: Leeds, Eric; Johnson, Michael; Dorman, Dan; Miller, Charles
Cc: Sprogeris, Patricia; Schwarz, Sherry; Walker, Dwight; Casby, Marcia; Virgilio, Martin; Weber, Michael
Subject: FW: CANCELED: 9:00AM and 9:30AM Prep Meetings with the Chairman
Importance: High

Budget Prep Meetings are canceled this morning

Thank you

Sandy Cianci

*Administrative Assistant to Marty Virgilio, DEDR
Office of the Executive Director for Operations
O-17 H13
301-415-1714
sandra.cianci@nrc.gov*

From: Pace, Patti
Sent: Tuesday, March 15, 2011 8:55 AM
To: Muessle, Mary; Ash, Darren; Dyer, Jim; Schmidt, Rebecca; Burns, Stephen
Cc: Cianci, Sandra; Garland, Stephanie; Hudson, Sharon; Ellis, Marv; Belmore, Nancy; Pulley, Deborah; Mayberry, Theresa; Gibbs, Catina; Speiser, Herald; Batkin, Joshua; Coggins, Angela; Dhir, Neha
Subject: CANCELED: 9:00AM and 9:30AM Prep Meetings with the Chairman
Importance: High

Please inform all affected staff.

Thanks

Patti Pace
Assistant to Chairman Gregory B. Jaczko
U.S. Nuclear Regulatory Commission
301-415-1820 (office)
301-415-3504 (fax)

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From: [Stablein, King](#)
To: [Haney, Catherine](#); [Mohseni, Aby](#); [Kokajko, Lawrence](#); [Kotra, Janet](#)
Subject: FW: Committee on Energy and Commerce, Republicans : Hearing :: The FY2012 Department of Energy and Nuclear Regulatory Commission Budgets
Date: Wednesday, March 16, 2011 8:56:58 AM

Gentlefolk,

I am told by the Chairman's office that this link will get us video access to the hearing.

Cheers,

King

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

From: Speiser, Herald

Sent: Wednesday, March 16, 2011 8:55 AM

To: Stablein, King

Subject: Committee on Energy and Commerce, Republicans : Hearing :: The FY2012 Department of Energy and Nuclear Regulatory Commission Budgets

<http://energycommerce.house.gov/hearings/hearingdetail.aspx?NewsID=8329>

From: [Haney, Catherine](#)
To: [Leeds, Eric](#)
Cc: [Dorman, Dan](#); [Tschiltz, Michael](#)
Subject: RE: Need NMSS help!
Date: Tuesday, March 15, 2011 3:38:00 PM

Eric,
Sorry I didn't get back to you sooner. I just saw this message.

Mike is available to help. He had been working with Jeff Temple in the Ops Center over the weekend and will contact Jeff to discuss current needs.

Let us know if there is someone else Mike should be working with.

Cathy

From: Leeds, Eric
Sent: Monday, March 14, 2011 5:06 PM
To: Haney, Catherine; Dorman, Dan
Subject: Need NMSS help!

Cathy/Dan –

I need your help. The Op Center watch bill has Tom Blount and Tim McGinty, along with Mark Lombard, running the Liaison Team. Both Tom and Tim are the management for the same division in NRR – it's a bad situation compounded by the 2.206 petitions we're receiving to shutdown all the plants due to the Japanese experience, which their division is responsible for handling. Mike Tschiltz is also qualified to stand that watch. Can I get him to replace either McGinty or Blount for the rest of the week? Any help will be greatly appreciated.

Thanks!

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

2/42

From: [Haney, Catherine](#)
To: [Kokajko, Lawrence](#)
Subject: Re: You may have heard that
Date: Tuesday, March 15, 2011 9:30:34 AM

I know. I never made it home yesterday evening. I was there from about 930 until 315 this am. Deal was he could go home and sleep and I'd stay for awhile longer and they'd call him back after I left if they needed him.

I

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

From: Kokajko, Lawrence
To: Haney, Catherine
Sent: Mon Mar 14 21:30:10 2011
Subject: You may have heard that

Aby was called into the Ops Center for 11 to 7 this evening. As it turned out, he was called in even earlier, and is there now. King will act for him tomorrow.

2/43

From: Holahan, Gary
To: Ramsey, Jack; Evans, Michele; Boger, Bruce; Grobe, Jack; Uhle, Jennifer; Dorman, Dan; Moore, Scott
Cc: Johnson, Michael; Rosales-Cooper, Cindy; Wiggins, Jim; Diec, David; Leeds, Eric; Cullingford, Michael; Astwood, Heather; Sheron, Brian; Sangimino, Donna-Marie; Dehn, Jeff; Haney, Catherine; Smith, Shawn; Miller, Charles; Cool, Donald; Tracy, Glenn; Doane, Margaret; Mamish, Nader; Dembek, Stephen; Abrams, Charlotte; Owens, Janice; McDevitt, Joan; Virgilio, Martin; Williams, Shawn; Weber, Michael; Muessle, Mary; Anderson, James
Subject: RE: Action Request - Potential Temporary Assignees to OIP
Date: Tuesday, March 15, 2011 1:19:32 PM

Jack,

I think that requests like this need to go to OEDO not to program offices.

Gary

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

From: Ramsey, Jack
Sent: Tuesday, March 15, 2011 11:26 AM
To: Holahan, Gary; Evans, Michele; Boger, Bruce; Grobe, Jack; Uhle, Jennifer; Dorman, Dan; Moore, Scott
Cc: Johnson, Michael; Rosales-Cooper, Cindy; Wiggins, Jim; Diec, David; Leeds, Eric; Cullingford, Michael; Astwood, Heather; Sheron, Brian; Sangimino, Donna-Marie; Dehn, Jeff; Haney, Catherine; Smith, Shawn; Miller, Charles; Cool, Donald; Tracy, Glenn; Doane, Margaret; Mamish, Nader; Dembek, Stephen; Abrams, Charlotte; Owens, Janice; McDevitt, Joan; Virgilio, Martin; Williams, Shawn; Weber, Michael
Subject: Action Request - Potential Temporary Assignees to OIP
Importance: High

All,

Activities involving the evolving situation in Japan are having, and are projected to continue to have, a significant impact upon OIP resources. With this, OIP would like to ask if each of the program offices could identify whether they have staff (preferably staff with international experience) that could be detailed to OIP for a period of, at least initially, 3 to 6 months. Any staff considered for possible rotation to OIP should be aware that they could potentially travel to Japan and be exposed to ionizing radiation. Please note that such identified staff may, or may not, actually be needed. Instead, OIP is hoping to have a list of individuals, with program office blessing, that could be utilized (including with very little or no notice).

If possible, feedback by late this week (Friday morning) would be extremely helpful. Within OIP, Joan McDevitt will be the principal point of contact for this.

Thanks in advance to everyone for their understanding during this challenging time.

Jack

2/44

From: [Haney, Catherine](#)
To: [Kokajko, Lawrence](#)
Subject: RE: Budget brief
Date: Tuesday, March 15, 2011 12:19:00 PM

Which part? Aby being called in or you wanted to be up all night since we were having all the fun.

I'm in if you want to chat.

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

From: Kokajko, Lawrence
Sent: Tuesday, March 15, 2011 11:16 AM
To: Haney, Catherine
Subject: RE: Budget brief

Hey, where am I on this???? Eh?

More seriously, sorry to hear about your Ops Center call and subsequent sleep interruption last evening. This is a bad situation in Biblical proportions, but you knew that.

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

From: Haney, Catherine
Sent: Tuesday, March 15, 2011 4:32 AM
To: Jacobs-Baynard, Elizabeth
Cc: Weber, Michael; Ordaz, Vonna; Kokajko, Lawrence; Tschiltz, Michael; Walker, Dwight
Subject: Budget brief

Liz

I was called back to the ops center before I had the chance to get home last night. I just got home and although exhausted need to relax before I can sleep.

I asked Josh if he thought the Chairman would still have the budget meeting. He thought yes but it was subject to change. He understood that I might not be into the office and was willing to do later if schedule permitted. Here are a few options -

1. I participate by phone. I have info jennifer sent by email.
2. Vonna and Mike/Marrissa brief the chairman
3. We schedule for later but I do need to leave at four.
4. Anything else you can think of.

I will set alarm for 8 and will check emails then.

Thanks
Cathy

2/45

Weber, Michael

From: Weber, Michael
Sent: Tuesday, March 15, 2011 12:23 PM
To: LIA05 Hoc
Subject: FYI - Talking Points on Implications of Fukushima Accident to U.S. Nuclear Plants

From: ANS DCSection <ans.dcsection@gmail.com>
To: ans.dcsection <ans.dcsection@gmail.com>
Sent: Tue Mar 15 10:43:19 2011
Subject: Re: Talking Points on Implications of Fukushima Accident to U.S. Nuclear Plants

Below is the text of the attachment for those of you who couldn't access the previously attached file. ~Suzanne

The predominance of ANS members reside in the U.S. As we interact with our family, neighbors and citizens in our communities many questions will come based on news coverage of the nuclear power plant situation in Japan. These talking points key on the theme 'could it happen in the U.S.?' *

ANS Member Talking Points

Implications to U.S. nuclear energy program from the Japanese earthquake

It is premature for the technical community to draw conclusions from the earthquake and tsunami tragedy in Japan with regard to the U.S. nuclear energy program. Many opposed to nuclear power will try to use this event to call for changes in the U.S. Japan is facing beyond a "worst case" disaster since we, the technical community, did not hypothesize an event of this magnitude. Thus far, even the most seriously damaged of Japan's 54 reactors have not released radiation at levels that would harm the public. That is testament to the way professionals in our profession operate: our philosophy of defense in-depth, excellent designs, high standards of construction, conduct of operations, and most important the effectiveness of employees in following emergency preparedness planning.

The Nuclear Science and Technology (NS&T) community takes very seriously our commitment to safe operation of any nuclear facility and will incorporate lessons learned based on this experience into our safety and operating procedures. The ANS will facilitate the sharing of technical information so that these lessons receive wide distribution and be archived for future stewards of this technology. Some points to remember from this week:

- Nuclear power plants have proven their value to society in Japan, the United States and elsewhere. They provide large amounts of base load electricity on an around-the-clock basis, and they do so cost-effectively with the lowest electricity production costs of any large energy source. Both Japan and the United States have benefited greatly from nuclear energy; it has been instrumental in the nations' economic success over the past half century and their high standard of living.
- Our hallmark as a NS&T organization is to incorporate operating experience and lessons learned. When we fully understand the facts surrounding the event in Japan, we will share, document and use those insights to make NS&T even safer.

- Nuclear energy has been and will continue to be a key element in meeting America's energy needs. The nuclear industry sets the highest standards for safety and, through our focus on continuous learning; we will incorporate lessons learned from the events in Japan. The dominant factors determining technology used for new generation will be demand for new generation, the competitiveness of nuclear energy in comparison with other sources of electricity generation, and the continued safe operation of U.S. nuclear power plants.
 - There has not been a rush to judgment on the part of U.S. policymakers during the first few days of this situation. We believe that is due in part to the recognition on their part that nuclear energy must continue to play a key role in a diversified energy portfolio that strengthens U.S. energy security and fuels economic growth.
- * The genesis of this document is the NEI "Talking Points - Implications to U.S. nuclear energy program of the Japanese earthquake" dated March 13, 2011

On Tue, Mar 15, 2011 at 9:58 AM, ANS DCSection <ans.dcsection@gmail.com> wrote:
FYI. The below email is from National ANS.

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

From: Joe Colvin [mailto:president@ans.org]

Sent: Monday, March 14, 2011 2:46 AM

To: Witt, Kevin

Subject: Talking Points on Implications of Fukushima Accident to U.S. Nuclear Plants

Dear ANS Members:

Over the last two days, the ANS Crisis Communications team has been very proactive and has handled a multitude of media and press calls. ANS spokespersons have participated in national television, radio and press interviews providing the views of the nuclear science and technology experts within the Society. We are particularly grateful to Dr. Dale Klein who has given tremendous support to the Society and the public in response to the events at Fukushima.

We have begun fielding media inquiries about the implications of the problems at Fukushima on the US program. We have prepared the attached talking points to assist responders to this line of questions. The talking points are consistent with the talking points prepared by the Nuclear Energy Institute (NEI) on the same subject.

Thank you all for your strong support!

Joe

Weber, Michael

From: Weber, Michael
Sent: Tuesday, March 15, 2011 6:35 PM
To: RST01 Hoc
Cc: HOO Hoc; Grobe, Jack
Subject: FYI - Industry Efforts

Update on actions being taken by the industry in response to the evolving Japanese nuclear emergencies.

From: Leeds, Eric
Sent: Tuesday, March 15, 2011 5:27 PM
To: Borchardt, Bill; Virgilio, Martin
Cc: Weber, Michael
Subject: FYI: Industry Efforts

FYI – Please see Bruce’s email below. NRR is considering short term and longer term actions in response to the Japanese event. We’re considering a measured regulatory response to put an initial footprint on the issue. Its positive to see the industry get out ahead of it – whatever planning they did based on the BP experience seems to be in play. We will keep you in the loop.

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

From: Boger, Bruce
Sent: Tuesday, March 15, 2011 5:04 PM
To: Leeds, Eric; Grobe, Jack; Ruland, William
Cc: Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Satorius, Mark; Pederson, Cynthia; Collins, Elmo; Howell, Art; Virgilio, Martin; Thomas, Eric; Brown, Frederick
Subject: Industry Efforts

I spoke with Randy Edington (CNO Palo Verde) and later with Steve Nichols (INPO) regarding industry actions as a result of the situation in Japan. The CNOs teleconferenced over the weekend and agreed to a series of near-term actions. INPO issued a Level 1 Event Report (highest level) to its members this afternoon. It identifies 4 actions, with due dates, and requires a written response. In general, the actions include walkdowns and verifications of aspects of facility capabilities to address B.5.b equipment and procedures, SAMGs, mitigation of SBO conditions, mitigation of internal and external flooding, and fire and flooding events that could be impacted by a concurrent seismic event. This should help shape the generic communication we’ve been discussing. INPO is figuring out how quickly they will be able to share the report with us. The report won’t be available to the public, but we can share it internally.

Weber, Michael

From: Weber, Michael
Sent: Wednesday, March 16, 2011 7:25 PM
To: LIA07 Hoc
Subject: RESPONSE - 1900 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

You are doing a lot and we appreciate all you do!

From: LIA07 Hoc
Sent: Wednesday, March 16, 2011 7:25 PM
To: Weber, Michael
Subject: RE: RESPONSE - 1900 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

Sorry, I missed those changes in my haste to get this out!
And I'll make sure that the Task Tracker includes those items.
-Sara

From: Weber, Michael
Sent: Wednesday, March 16, 2011 7:21 PM
To: LIA07 Hoc
Cc: LIA05 Hoc; ET01 Hoc
Subject: RESPONSE - 1900 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

Suggest some revisions to your cover email that you are using to distribute these SitReps. See below.

Also please make sure that the Task Tracker List for the ET includes the following items:

- Provide additional resource materials to the directors of NRR, RES, NMSS, and NRO to support Congressional briefings; Liaison Team, Due 0600, 3/17/2011
- Develop a standard slide (8-10 slides) set to communicate key messages consistently and clearly regarding the NRC's ongoing response to the Japanese Nuclear Emergency for Congressional audiences; Liaison Team, Due 1200, 3/17/2011.

Thanks, Sara

From: LIA07 Hoc
Sent: Wednesday, March 16, 2011 7:13 PM
Subject: 1900 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

Attached, please find a ~~1600~~ 1900 EDT situation report from the US Nuclear Regulatory Commission's Emergency Operations Center regarding the impacts of the earthquake/tsunami on March 11 ~~13~~, 2011. This Update includes information related to NRC's evaluation of radiation measurements from the USS Ronald Reagan. Please note that this information is "Official Use Only" and is only being shared within the federal family.

Please call the Headquarters Operations Officer at 301-816-5100 with questions.

-Sara

Sara K. Mroz
Communications and Outreach
Office of Nuclear Security and Incident Response
US Nuclear Regulatory Commission

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sara.mroz@nrc.gov

LIA07.HOC@nrc.gov (Operations Center)

Merzke, Daniel

From: Merzke, Daniel
Sent: Wednesday, April 13, 2011 1:52 PM
To: Andersen, James
Cc: Muessle, Mary
Subject: RE: Request from Commissioner Magwood

I've requested from NSIR a schedule of planned meetings. At this time, the only meeting I know for sure is being led by EPA on 4/21, and it's concerning the working group paper being developed for long-term cleanup criteria, which was one of the PLE topics. There is supposed to be a Deputies meeting to make a decision during the last week of April/first week of May, but it hasn't been scheduled, yet, and I'm hearing the due date for the paper got extended to 4/29, so it may get pushed back even further.

I have no idea of any meetings scheduled with external stakeholders on the re-entry issue. I understand there is a meeting in the Ops Center at 3:00 pm today to discuss this topic, so hopefully there'll be some information we can share after that. I'll respond to Patty with what I know as soon as I find out the results of that meeting.

Dan

From: Andersen, James
Sent: Wednesday, April 13, 2011 11:51 AM
To: Merzke, Daniel
Cc: Muessle, Mary
Subject: RE: Request from Commissioner Magwood

Dan, do we have anything in this area. Sorry, I didn't get to these e-mails until now.

Jim A.

From: Bubar, Patrice
Sent: Wednesday, April 13, 2011 9:37 AM
To: Vietti-Cook, Annette; Muessle, Mary; Andersen, James
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Bates, Andrew; Hart, Ken; Laufer, Richard; Baval, Rochelle
Subject: RE: Request from Commissioner Magwood

Annette, Mary and Jim – any update on when we will get a response?

Patty Bubar
Chief of Staff
Office of Commissioner William D. Magwood
U.S. Nuclear Regulatory Commission
301-415-1895

From: Vietti-Cook, Annette
Sent: Wednesday, April 06, 2011 8:03 AM
To: Muessle, Mary; Andersen, James
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Bubar, Patrice; Bates, Andrew; Hart, Ken; Laufer, Richard; Baval, Rochelle
Subject: FW: Request from Commissioner Magwood

Commissioner Magwood is requesting the information on the meetings NRC is being asked to participate in with other federal agencies and the office of the President – relating to Protective Action Guidelines and cleanup levels in the U.S. as well as re-entry guidance for U.S. citizens in Japan.

2/4/9

Can you help in providing a response or point me in the right direction?

From: Bubar, Patrice

Sent: Tuesday, April 05, 2011 6:22 PM

To: Vietti-Cook, Annette; Hart, Ken; Bates, Andrew

Cc: Sosa, Belkys; Nieh, Ho; Sharkey, Jeffry; Batkin, Joshua; Tadesse, Rebecca

Subject: Request from Commissioner Magwood

SECY – Commissioner Magwood requests that Commission offices be provided information on the meetings that NRC is being asked to participate in with other federal agencies as well as the Office of the President – relating to Protective Action Guidelines and cleanup levels in this country as well as re-entry guidance for US citizens in Japan.

Thank you and let me know if you have any questions.

Patty Bubar

Chief of Staff

Office of Commissioner William D. Magwood

U.S. Nuclear Regulatory Commission

301-415-1895

Weber, Michael

From: Weber, Michael
Sent: Wednesday, March 16, 2011 7:04 PM
To: Leeds, Eric
Subject: RESPONSE - NRR Actions: near-term

Thanks, Eric. We're going to need the team....!

From: Leeds, Eric
Sent: Wednesday, March 16, 2011 1:14 PM
To: Virgilio, Martin; Weber, Michael
Cc: Borchardt, Bill; Boger, Bruce; Grobe, Jack; Ruland, William; Johnson, Michael; Sheron, Brian; Evans, Michele
Subject: NRR Actions: near-term
Importance: High

Please see below. NRR has assembled a team, led by an SES manager to evaluate near term actions for the agency's response to the Japanese event. At this time, we are considering inspection as well as a generic communication and a review of "sensitive" licensing actions". I will keep you informed as we go forward I have discussed the current situation in Japan with the RAs and our preliminary thoughts for regulatory actions going forward.

We have also prepared a scheduling note for the commission meeting for next week. We will send it to you.

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

From: Brown, Frederick
Sent: Wednesday, March 16, 2011 11:32 AM
To: Leeds, Eric; Boger, Bruce; Grobe, Jack
Subject: FW: Action: Consider potential on-site activities in near-term
Importance: High

FYI

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: Vegel, 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



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200

Washington, D.C. 20555-0001

E-mail: opa.resource@nrc.gov Site: www.nrc.gov

Blog: <http://public-blog.nrc-gateway.gov>

No. 11-050

March 16, 2011

NRC PROVIDES PROTECTIVE ACTION RECOMMENDATIONS BASED ON U.S. GUIDELINES

Under the guidelines for public safety that would be used in the United States under similar circumstances, the NRC believes it is appropriate for U.S. residents within 50 miles of the Fukushima reactors to evacuate.

Among other things, in the United States protective actions recommendations are implemented when projected doses could exceed 1 rem to the body or 5 rem to the thyroid. A rem is a measure of radiation dose. The average American is exposed to approximately 620 millirems, or 0.62 rem, of radiation each year from natural and manmade sources.

In making protective action recommendations, the NRC takes into account a variety of factors that include weather, wind direction and speed, and the status of the problem at the reactors.

Attached are the results of two sets of computer calculations used to support the NRC recommendations.

In response to nuclear emergencies, the NRC works with other U.S. agencies to monitor radioactive releases and predict their path. All the available information continues to indicate Hawaii, Alaska, the U.S. Territories and the U.S. West Coast are not expected to experience any harmful levels of radioactivity.

###

News releases are available through a free *listserv* subscription at the following Web address: <http://www.nrc.gov/public-involve/listserver.html>. The NRC homepage at www.nrc.gov also offers a SUBSCRIBE link. E-mail notifications are sent to subscribers when news releases are posted to NRC's website.

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From: [Weber, Michael](#)
To: [Powell, Amy](#); [Schmidt, Rebecca](#)
Cc: [Borchardt, Bill](#); [Virgilio, Martin](#); [McDermott, Brian](#); [Evans, Michele](#); [Sheron, Brian](#); [Leeds, Eric](#); [Haney, Catherine](#); [Johnson, Michael](#); [LIA05 Hoc](#); [ET01 Hoc](#)
Subject: FYI - READY TO DEPLOY
Date: Wednesday, March 16, 2011 7:15:43 PM

As requested by Bill Borchardt, we have arranged for Brian Sheron, Cathy Haney, Eric Leeds, and Mike Johnson to be prepared to conduct briefings for Congressional members and staffs on the NRC's ongoing response to the nuclear emergency in Japan. NSIR/OPS Center has a few additional action items to support, such as distributing additional information (including the Chairman's short statement, testimony, and Q&As from today's hearing/meeting) and preparing a standard slide deck (8-10 slides) that could be used to communicate our key messages in a clear and consistent manner.

Mike

Michael Weber
Deputy Executive Director for Materials, Waste, Research,
State, Tribal, and Compliance Programs
U.S. Nuclear Regulatory Commission

301-415-1705
Mail Stop O16E15

2/52

From: [Kokajko, Lawrence](#)
To: [Haney, Catherine](#)
Subject: FW: OFFER: Current situation in Japan and impacts on NRC
Date: Wednesday, March 16, 2011 12:30:05 PM

I noted the requests for assistance at today's team meeting. Hence, Wes' response below. I would like to add for your benefit that SwRI has done engineering and scientific work at this particular facility. It is your call if you want to inform the OEDO and others. Please let me know.

From: Wesley Patrick [mailto:wpatrick@cnwra.swri.edu]
Sent: Wednesday, March 16, 2011 11:45 AM
To: Haney, Catherine; Kokajko, Lawrence; Mohseni, Aby; Davis, Jack
Subject: OFFER: Current situation in Japan and impacts on NRC

All,

The current and evolving situation in Japan is of great concern and obvious impact. Although the impacts are greatest in Japan, they clearly reach to NRC as it fulfills its responsibilities in the US and within the international community. In this context, I and others at CNWRA have strong interest in assisting NRC in whatever way and with whatever means are appropriate.

Certainly, there are various restrictions that must be considered. These include such things as (i) prohibition on contractors performing inherent functions of government, (ii) associated liability and indemnification, and (iii) particularly if we are dispatched to Japan, radiological risks and medical issues. These are countered, however, by what we could bring to bear to assist NRC. As you are well aware, we have a breadth of relevant technical expertise, understanding of NRC roles and responsibilities, familiarity of the NPP regulatory construct, programmatic knowledge and sensitivity, and in many cases operations and communications expertise. These are skills—motivated by a deep desire to assist NRC and Japan—that could help fill the gap as your organization is stressed to the limits.

I respectfully request that you consider this offer. If you see roles and responsibilities we could assume, gaps we can fill, or slack we can take up, please contact me as soon as possible. Working through SwRI management, we will do everything we can to address with you any issues you may have in this regard.

Wesley C. Patrick, Ph.D.

Vice President, Geosciences and Engineering Division

Southwest Research Institute

wpatrick@swri.org www.ged.swri.org

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From: [Kokajko, Lawrence](#)
To: [Haney, Catherine](#); [Dorman, Dan](#); [Ordaz, Vonna](#); [Kinneman, John](#); [Pulliam, Timothy](#)
Subject: FW: Spent fuel storage at Fukushima Daiichi
Date: Wednesday, March 16, 2011 12:32:36 PM
Attachments: [Fukushima-Daiichi-Nuclear-Power-Station2.jpg](#)

From: Spitzberg, Blair
Sent: Wednesday, March 16, 2011 12:10 PM
To: Davis, Jack; Parrott, Jack; Kokajko, Lawrence; Mohseni, Aby
Cc: Benney, Brian; Everett, Vincent; Willoughby, Leonard; Rubenstone, James
Subject: RE: Spent fuel storage at Fukushima Daiichi

Aerial photo attached shows ISFSI at Fukushima Daiichi.

- Blair

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

From: Davis, Jack
Sent: Wednesday, March 16, 2011 11:02 AM
To: Parrott, Jack; Kokajko, Lawrence; Mohseni, Aby
Cc: Benney, Brian; Everett, Vincent; Spitzberg, Blair; Willoughby, Leonard; Rubenstone, James
Subject: RE: Spent fuel storage at Fukushima Daiichi

Thanks Jack. We visited the Mutsu facility when we were over there last year, but I wasn't aware of the dry cask storage at Fukushima Dai-ichi. Thanks for passing this along.

Jack

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

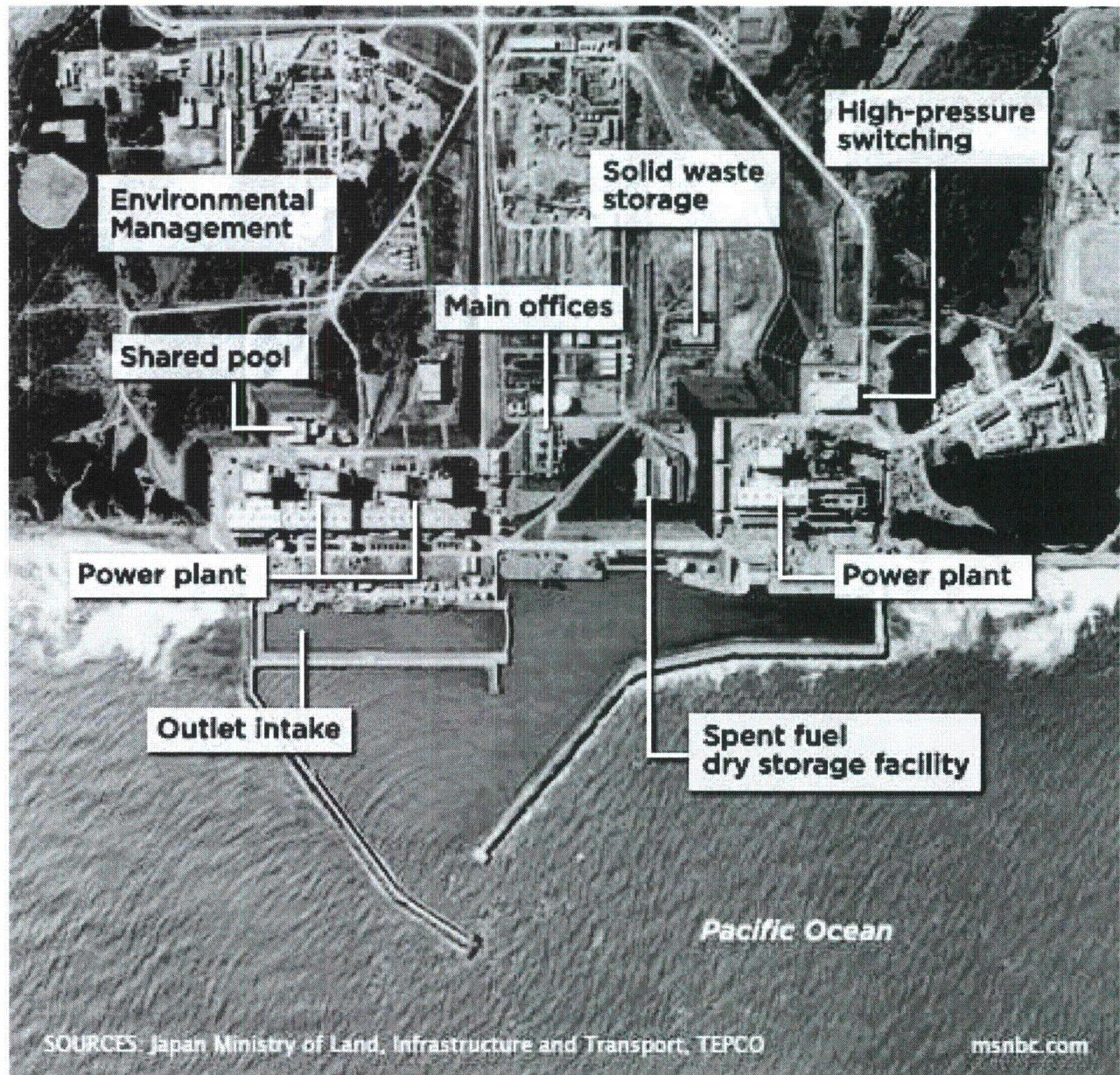
From: Parrott, Jack
Sent: Wednesday, March 16, 2011 11:23 AM
To: Kokajko, Lawrence; Davis, Jack; Mohseni, Aby
Cc: Benney, Brian; Everett, Vincent; Spitzberg, Blair; Willoughby, Leonard; Rubenstone, James
Subject: Spent fuel storage at Fukushima Daiichi

Out of curiosity about spent fuel storage at the reactor site in

2/54

question I ran across the attached presentation that describes all fuel storage at the site and identifies what could be described as a dry fuel storage research facility where they take a cask out every five years and open it up. Interesting.

Fukushima Daiichi Nuclear Power Station



From: Muessle, Mary
To: Evans, Michele; Hackett, Edwin; Brenner, Eliot; Schmidt, Rebecca; Powell, Amy; Droggitis, Spiros; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Greene, Kathryn; Stewart, Sharon; Howard, Patrick; Miller, Charles; Moore, Scott; Cohen, Miriam; Tracy, Glenn; Haney, Catherine; Dorman, Dan; Johnson, Michael; Holahan, Gary; Leeds, Eric; Boger, Bruce; Grobe, Jack; Zimmerman, Roy; Campbell, Andy; Sheron, Brian; Uhle, Jennifer; Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Casto, Chuck; Satorius, Mark; Pederson, Cynthia; Collins, Elmo; Howell, Art; Andersen, James; Akstulewicz, Brenda; Belmore, Nancy; Quesenberry, Jeannette; Kreuter, Jane; Armstrong, Janine; Hudson, Sharon; Ellis, Marv; Hasan, Nasreen; Ronewicz, Lynn; Schumann, Stacy; Daniels, Stanley; Casby, Marcia; Thomas, Loretta; Walker, Dwight; Sprogeris, Patricia; Schwarz, Sherry; Ross, Robin; Cohen, Shari; Riddick, Nicole; Flory, Shirley; Veltri, Debra; Matakas, Gina; ODaniell, Cynthia; Miles, Patricia; Lee, Pamela; Dubose, Sheila; Buckley, Patricia; Tomczak, Tammy; Owen, Lucy; Tannenbaum, Anita; Gusack, Barbara; Harrington, Holly; Ricketts, Paul; Howell, Linda; Higginbotham, Tina; Ross, Brenda; Boyce, Thomas (OIS); Schaeffer, James; Jackson, Donald
Cc: Williams, Shawn; Andersen, James; Ramsey, Jack
Subject: Additional Staff requirements outside Ops Center Long Term Staffing
Date: Wednesday, March 16, 2011 9:31:48 AM
Importance: High

OPA and OIP expect large call volumes today and in the next few weeks given expected news from Japan. OIP is looking for names of people who have desk officer or other OIP or international experience to assist them in the event that current staff cannot meet the work demands for call inquiries as well as ongoing international work. Please provide Shawn Williams and I a list of names that could serve to help OIP in this capacity and their general availability over the next week and month. It is difficult to determine the need level at this time, but as in the Op Center, it is anticipated OIP will have for an additional month. We would like the list of names by COB today.

Thanks
Mary

Mary Muessle
Assistant for Operations - Acting
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1703 office
301-415-2700 fax

From: Evans, Michele
Sent: Tuesday, March 15, 2011 5:53 PM
To: Hackett, Edwin; Brenner, Eliot; Schmidt, Rebecca; Powell, Amy; Droggitis, Spiros; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Greene, Kathryn; Stewart, Sharon; Howard, Patrick; Miller, Charles; Moore, Scott; Cohen, Miriam; Tracy, Glenn; Haney, Catherine; Dorman, Dan; Johnson, Michael; Holahan, Gary; Leeds, Eric; Boger, Bruce; Grobe, Jack; Zimmerman, Roy; Campbell, Andy; Sheron, Brian; Uhle, Jennifer; Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Casto, Chuck; Satorius, Mark; Pederson, Cynthia; Collins, Elmo; Howell, Art; Muessle, Mary; Andersen, James; Akstulewicz, Brenda; Belmore, Nancy; Quesenberry, Jeannette; Kreuter, Jane; Armstrong, Janine; Hudson, Sharon; Ellis, Marv; Hasan, Nasreen; Ronewicz, Lynn; Schumann, Stacy; Daniels, Stanley; Casby, Marcia; Thomas, Loretta; Walker, Dwight; Sprogeris, Patricia; Schwarz, Sherry; Ross, Robin; Cohen, Shari; Riddick, Nicole; Flory, Shirley; Veltri, Debra; Matakas, Gina; ODaniell, Cynthia; Miles, Patricia; Lee, Pamela; Dubose, Sheila; Buckley, Patricia; Tomczak, Tammy; Owen, Lucy; Tannenbaum, Anita; Gusack, Barbara; Harrington, Holly; Ricketts, Paul; Howell, Linda; Higginbotham, Tina; Ross, Brenda; Boyce, Thomas (OIS); Schaeffer, James; Jackson, Donald
Subject: Follow-up from 4 pm teleconference on Ops Center Long Term Staffing

Everyone,

2/55

Please find attached 1) a list of current positions being staffed in the Ops Center and 2) the staff identified as available to support in Japan.

Regarding additional staff available to support in the ops center, the primary needs are for the specialized positions on the PMT and anyone with previous international experience in OIP.

Regarding support in Japan, please provide any updates/changes to the list by COB March 17. The target time frame for sending these staff members is March 27-April 9, so please consider that when considering staff to put on the list.

Thanks for your support.

Michele

From: [Kokajko, Lawrence](#)
To: [Doolittle, Elizabeth](#); [Smith, Shawn](#); [Haney, Catherine](#)
Subject: Fw: Hipo Volunteered to help Volunteers to Support Agency Response to Japanese Event
Date: Wednesday, March 16, 2011 8:11:22 PM
Importance: High

From: Davis, Jack
To: Kokajko, Lawrence
Sent: Wed Mar 16 17:47:19 2011
Subject: FW: Hipo Volunteered to help Volunteers to Support Agency Response to Japanese Event

An additional volunteer.

Jack

From: Guttman, Jack
Sent: Wednesday, March 16, 2011 3:28 PM
To: Davis, Jack
Subject: Hipo Volunteered to help Volunteers to Support Agency Response to Japanese Event
Importance: High

From: Gonzalez, Hipolito
Sent: Wednesday, March 16, 2011 11:52 AM
To: Guttman, Jack
Subject: RESPONSE: Action: Volunteers to Support Agency Response to Japanese Event
Importance: High

Jack:

I only had basic training long time ago on Ops Center (as part of my reactor Inspector Qualification in Region III), but I am willing to volunteer for "RST Comm / ERDS Operator," in the Reactor Safety Team, which functions I could probably I probably quickly learn (#1).

Also, I have done in the past work with International counterparts when I was in the office of RES in several projects, and currently, in the IAEA Consultancy for Extended Storage, so I would also like to volunteer for the OIP desk officer position if needed (#3).

Let me know what you think, so I we can talk about it.

Hipo

From: NMSSBOX Resource
Sent: Wednesday, March 16, 2011 9:45 AM
To: NMSS Distribution
Subject: Action: Volunteers to Support Agency Response to Japanese Event

Volunteers to Support Agency Response to Japanese Event

2/56

Yesterday, I received several requests to identify individuals who would be interested in responding to the Japanese event. Specifically,

1. NSIR has asked for volunteers who would staff selected positions in the Ops Center. These positions are listed below. Obviously, previous Ops Center training and experience is preferred but NSIR is now considering others. Note, you will be volunteering for shift work (either 8 hr or 12 hr) as the Ops Center is being staffed 24/7.
2. NSIR has asked us to identify individuals who will be sent to replace the team that has been deployed to Japan. The qualifications have not been specified but I believe they are looking for individuals with BWR and/or severe accident mitigation experience. The new team is targeted to leave on March 27 and return on April 9.
3. OIP has asked us to identify individuals, who (1) have had desk officer or other international experience and (2) are interested in helping them in the event that current staff cannot meet their work demands. (These individuals could be deployed to Japan with the team under 2 above.)

If you are interested in any of these opportunities and your workload supports this effort, please discuss your interest with your Branch Chief ASAP. I have asked that the Divisions provide me a consolidated list of volunteers by COB today, March 16.

Information needed –

Opportunity 1 – name, current job title, Ops Center Position of interest, previous training/experience in Ops Center or similar position (outside the Agency).

Opportunity 2 – name, current job title, status of passport, brief description of experience/training that supports this type of assignment.

Opportunity 3 – name, current job title, brief description of international experience/training that would support this assignment.

Ops Center Positions currently being staffed as of March 14.

Liaison Team

LT Director

LT Coordinator

LT Federal Liaison (2)

LT Congressional Liaison (2)

LT International Liaison (2)

Protective Measures Team

PMTR Director

PMTR Coordinator

PMTR Protective Actions Assistant Director

PMTR RAAD (Radiological Assessment Assistant Director)

PMTR Dose Assessment (RASCAL)

RASCAL Developer

PMTR GIS Analyst (Geographical Information Systems)

PMTR Meteorologist

Reactor Safety Team

RST Director

RST Coordinator

Severe Accident / PRA

BWR Expert

RST Comm / ERDS Operator

RST Support (Seismology Q&A)

From: [Culp, Lisa](#)
To: [Haney, Catherine](#); [Dorman, Dan](#)
Subject: FW: FYI_FW: Appreciation and Continued Mission Focus
Date: Wednesday, March 16, 2011 5:48:48 PM

FYI – Eric Leeds sent to his staff.

From: Schwarz, Sherry **On Behalf Of** Leeds, Eric
Sent: Wednesday, March 16, 2011 5:05 PM
To: NRR Distribution
Subject: Appreciation and Continued Mission Focus

During this period of heightened activity in response to the events in Japan, I want to take the time to let you know how much I value the work that all of you do in NRR. Some of you are providing key support in emergency response, while others are performing the equally vital day-to-day regulatory duties. Throughout these distracting times abroad, it is so important to keep our focus on the safe operation of nuclear power plants here in the United States. Whether you are involved with licensing actions, technical analysis, budget preparations, or administrative functions to help us execute our essential regulatory work, your continued dedication and commitment are vital for us to maintain our mission of protecting the American public's health and safety.

I know that there can be anxiety and stress as events unfold; take time to take good care of yourself. To keep informed, there will be periodic updates from the EDO, and I encourage you to stay abreast of the agency's public announcements and blog at www.nrc.gov. As regulators, we excel at our steadiness in protecting people and the environment. Again, thanks for all you do.

Eric

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From: [Keegan, Elaine](#)
To: [Wrona, David](#); [Pannier, Stephen](#); [Sakai, Stacie](#); [Klementowicz, Stephen](#); [Green, Kimberly](#)
Subject: FW: Japan Before and After Photos
Date: Wednesday, March 16, 2011 1:36:58 PM

A friend in the industry sent me this link.

Subject: Japan Before and After Photos

<http://www.nytimes.com/interactive/2011/03/13/world/asia/satellite-photos-japan-before-and-after-tsunami.html>

amazing - interactive satellite photos of japan before and after the tsunami. drag the middle line left to right to see before and after.

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From: [Kokajko, Lawrence](#)
To: [Doolittle, Elizabeth](#); [Smith, Shawn](#); [Haney, Catherine](#)
Subject: Fw: Yawar Faraz would like to be added to the list to assist in the Japanese event
Date: Wednesday, March 16, 2011 8:10:52 PM
Importance: High

From: Davis, Jack
To: Kokajko, Lawrence
Sent: Wed Mar 16 17:49:36 2011
Subject: FW: Yawar Faraz would like to be added to the list to assist in the Japanese event

Yawar is a volunteer also. Sorry for the piecemeal way of doing this, but I've been going through my emails and keep finding additional staff volunteers.

Jack

From: Guttman, Jack
Sent: Wednesday, March 16, 2011 4:53 PM
To: Davis, Jack
Subject: Yawar Faraz would like to be added to the list to assist in the Japanese event
Importance: High

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From: [Sheron, Brian](#)
To: [OST04 Hoc](#); [Haney, Catherine](#); [Johnson, Michael](#)
Cc: [Flory, Shirley](#)
Subject: RE: Go-books
Date: Wednesday, March 16, 2011 9:20:53 PM

Please send mine to Shirley Flory.

From: OST04 Hoc
Sent: Wednesday, March 16, 2011 2:54 PM
To: Haney, Catherine; Sheron, Brian; Johnson, Michael
Subject: Go-books

Shortly, you should be receiving hard copy go-books to support your public outreach efforts. Further updates to the books will be sent electronically. Please identify where you would like your electronic updates to be sent (yourselves, administrative staff, etc.).

Regards,
Melissa Ralph, NSIR
Melissa.Ralph@NRC.gov <<mailto:Melissa.Ralph@NRC.gov>>
LIA07.hoc@nrc.gov <<mailto:LIA07.hoc@nrc.gov>> (Operations Center)

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From: Haney, Catherine
To: Ruland, William; Williams, Donna; Uhle, Jennifer; Sheron, Brian; Moore, Scott; Miller, Charles; Brenner, Eliot; Dorman, Dan; Wiggins, Jim; Evans, Michele; Doane, Margaret; Mamish, Nader
Cc: Johnson, Michael; Holahan, Gary; Leeds, Eric; Grobe, Jack; Howe, Allen; Bajwa, Chris
Subject: RE: Planning for upcoming, short notice Commission meeting
Date: Wednesday, March 16, 2011 2:06:00 PM

NMSS POC is Chris Bajwa, SFST

From: Ruland, William
Sent: Wednesday, March 16, 2011 1:19 PM
To: Williams, Donna; Uhle, Jennifer; Sheron, Brian; Moore, Scott; Miller, Charles; Brenner, Eliot; Haney, Catherine; Dorman, Dan; Wiggins, Jim; Evans, Michele; Doane, Margaret; Mamish, Nader
Cc: Johnson, Michael; Holahan, Gary; Leeds, Eric; Grobe, Jack; Howe, Allen
Subject: Planning for upcoming, short notice Commission meeting

Folks,

Attached find a early draft of a scheduling note for a Commission meeting that may be held as early as this coming Monday, March 21st. NRR has been assigned as the lead to pull the meeting together. As you could imagine, this will take some effort. To help with coordination, please provide me a contact so that we can draw on your expertise and help to make this happen. Alan Howe, currently deputy director of DORL, has the lead to pull this together.

I know you have many questions. I'd ask for your patience as we try to get this done. I'll keep you updated through the contact that you provide to us.

Thank you very much.

Bill Ruland

Z/bf

From: [NMSSBOX Resource](#)
To: [NMSS Distribution](#)
Subject: Action: Volunteers to Support Agency Response to Japanese Event
Date: Wednesday, March 16, 2011 9:44:59 AM

Volunteers to Support Agency Response to Japanese Event

Yesterday, I received several requests to identify individuals who would be interested in responding to the Japanese event. Specifically,

1. NSIR has asked for volunteers who would staff selected positions in the Ops Center. These positions are listed below. Obviously, previous Ops Center training and experience is preferred but NSIR is now considering others. Note, you will be volunteering for shift work (either 8 hr or 12 hr) as the Ops Center is being staffed 24/7.
2. NSIR has asked us to identify individuals who will be sent to replace the team that has been deployed to Japan. The qualifications have not been specified but I believe they are looking for individuals with BWR and/or severe accident mitigation experience. The new team is targeted to leave on March 27 and return on April 9.
3. OIP has asked us to identify individuals, who (1) have had desk officer or other international experience and (2) are interested in helping them in the event that current staff cannot meet their work demands. (These individuals could be deployed to Japan with the team under 2 above.)

If you are interested in any of these opportunities and your workload supports this effort, please discuss your interest with your Branch Chief ASAP. I have asked that the Divisions provide me a consolidated list of volunteers by COB today, March 16.

Information needed –

Opportunity 1 – name, current job title, Ops Center Position of interest, previous training/experience in Ops Center or similar position (outside the Agency).

Opportunity 2 – name, current job title, status of passport, brief description of experience/training that supports this type of assignment.

Opportunity 3 – name, current job title, brief description of international experience/training that would support this assignment.

Ops Center Positions currently being staffed as of March 14.

Liaison Team

LT Director
LT Coordinator
LT Federal Liaison (2)
LT Congressional Liaison (2)
LT International Liaison (2)

Protective Measures Team

PMTR Director
PMTR Coordinator
PMTR Protective Actions Assistant Director
PMTR RAAD (Radiological Assessment Assistant Director)
PMTR Dose Assessment (RASCAL)
RASCAL Developer
PMTR GIS Analyst (Geographical Information Systems)

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PMTR Meteorologist

Reactor Safety Team

RST Director

RST Coordinator

Severe Accident / PRA

BWR Expert

RST Comm / ERDS Operator

RST Support (Seismology Q&A)

From: Ruland, William
To: Williams, Donna; Uhle, Jennifer; Sheron, Brian; Moore, Scott; Miller, Charles; Brenner, Eliot; Haney, Catherine; Dorman, Dan; Wiggins, Jim; Evans, Michele; Doane, Margaret; Mamish, Nader
Cc: Johnson, Michael; Holahan, Gary; Leeds, Eric; Grobe, Jack; Howe, Allen
Subject: Planning for upcoming, short notice Commission meeting
Date: Wednesday, March 16, 2011 1:18:40 PM
Attachments: Scheduling NoteMar2011 JapaneseEvent agh 3-16-2011.docx

Folks,

Attached find a early draft of a scheduling note for a Commission meeting that may be held as early as this coming Monday, March 21st. NRR has been assigned as the lead to pull the meeting together. As you could imagine, this will take some effort. To help with coordination, please provide me a contact so that we can draw on your expertise and help to make this happen. Alan Howe, currently deputy director of DORL, has the lead to pull this together.

I know you have many questions. I'd ask for your patience as we try to get this done. I'll keep you updated through the contact that you provide to us.

Thank you very much.

Bill Ruland

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Draft: 3/16/11

SCHEDULING NOTE

Title: BRIEFING ON JAPANESE EVENT and US RESPONSE (Public?)

Purpose: To provide the Commission a status on the recent event in Japan, and to provide an overview of staff actions to date, early planned actions

Scheduled: March XX, 2011
9:00 am

Duration: Approx. 2 hours

Location: Commissioners' Conference Room OWFN

Participants: **Presentation**

NRC Staff Panel **50 mins.***

Bill Borchardt, Executive Director for Operations 15 mins.*
Topic: Overview of Japanese Event and U.S. response

Mike Weber, Deputy Executive Director Materials, Waste, Research, State, Tribal and Compliance Programs 10 mins.*
Topic: Potential consequences; what will be seen in U.S.

Marty Virgilio, Deputy Executive Director for Reactor and Preparedness Programs 10 mins.*
Topic: Situation assessment for U.S. reactors and applicants

Elliot Brenner, OPA 5 mins.*
Topic: Communication Challenges

Eric Leeds, Director, NRR 10 mins.*
Topic: Path forward; Near term and longer term

Commission Q & A **30 mins.**

Discussion – Wrap-up **5 mins.**

Break **10 mins.**

Closed session

Strategy and agenda planning

Documents:

Staff background material due to SECY: March __, 2011.

Slides due to SECY: March __, 2011.

From: [Rahimi, Meraj](#)
To: [Haney, Catherine](#)
Cc: [Ordaz, Vonna](#)
Subject: Volunteers to Support Agency Response to Japanese Event
Date: Wednesday, March 16, 2011 5:25:39 PM
Attachments: [Volunteers to Support Agency Response to Japanese Event.docx](#)

Cathy,

Attached are the list of volunteers with their information from SFST. Bernie White, Kim Gambone, and Kevin Witt have already been working at the Op. Center. I put Kevin's name on the list again because he would like to volunteer for additional duties.

Thanks,

Meraj Rahimi
Chief of Criticality, Shielding, and Dose Assessment Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Materials Safety and Safeguard
U.S. Nuclear Regulatory Commission
6003 Executive Blvd., Suite 301
Rockville, MD 20852
Phone: 301-492-3338
Fax: 301-492-3348
e-mail: meraj.rahimi@nrc.gov

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Opportunity 1

Kevin Witt, Office Allegation Coordinator,

- LT Federal Liaison, my relevant experience includes significant interactions in an official capacity with several government agencies including: US Department of Transportation, Department of Energy, Federal Emergency Management Agency, Department of Homeland Security.
- LT International Liaison, my relevant experience includes significant interactions in an official capacity with other national nuclear regulatory authorities including Canada, United Kingdom, France, Thailand and Vietnam.
- PMT Protective Actions Assistant Director, my relevant experience includes reviewing and implementing radiological protection programs at research reactors and reviewing licensing actions for any radiological consequences, also I have been in a leadership role at the Agency in several areas, including Pandemic Response, Continuity of Operations, Regulatory Process Improvements, and Allegation Program Management.

Michel Call

I'd be willing to volunteer in whatever capacity it is felt I could be useful. That would most likely be for the Ops Center and/or to help with OIP. For the Ops Center, I've not used RASCAL before, but in talking with others, it seems I could pick it up with some help. So, I'd be willing to volunteer for doing dose assessments. Also, for either the Ops Center (I've heard that there is some translation help that may be needed) &/or the OIP, I think I could contribute because I do have some competency in Japanese (I lived there for 2 years in Northern Japan, including Sendai and neighboring towns – I spent about a year in the Sendai area). I also spent a couple of summers in Tokyo doing collaborative research work for my graduate degree. I learned and spoke Japanese while there and work to keep up on my language skills now too. So, you could put me down for Opportunity 1 and 3. For purposes of the info requested in the email below, my name is Michel Call, my position title is Nuclear Engineer (I do criticality and shielding evaluations). The preceding info should cover the experience and interest info requested below.

Eric Benner

- Current Job Title: Branch Chief
- Ops Center Position(s) of Interest: PMTR PAAD (Protective Actions Assistant Director) AND/OR PMTR RAAD (Radiological Assessment Assistant Director)
- Previous training/experience in Ops Center: I am currently qualified as a PMTR Communicator and PMTR RST/SGT Interface

Chris Staab

Project manager. Positions of interest: Liason Team. Previous experience at Navy's Emergency Operations center

William (Chris) Allen, project manager

- Positions of interest: Liason Team. General communication experience

John Goshen

- , project manager. Positions of interest: LT Coordinator, LT Federal Liaison, LT Congressional Liaison. Previous experience at Ops Center in response to 9/11 events

Opportunity 3

Michel Call

I'd be willing to volunteer in whatever capacity it is felt I could be useful. That would most likely be for the Ops Center and/or to help with OIP. For the Ops Center, I've not used RASCAL before, but in talking with others, it seems I could pick it up with some help. So, I'd be willing to volunteer for doing dose assessments. Also, for either the Ops Center (I've heard that there is some translation help that may be needed) &/or the OIP, I think I could contribute because I do have some competency in Japanese (I lived there for 2 years in Northern Japan, including Sendai and neighboring towns – I spent about a year in the Sendai area). I also spent a couple of summers in Tokyo doing collaborative research work for my graduate degree. I learned and spoke Japanese while there and work to keep up on my language skills now too. So, you could put me down for Opportunity 1 and 3. For purposes of the info requested in the email below, my name is Michel Call, my position title is Nuclear Engineer (I do criticality and shielding evaluations). The preceding info should cover the experience and interest info requested below.

From: [Kokajko, Lawrence](#)
To: [Haney, Catherine](#)
Subject: You may have heard that
Date: Monday, March 14, 2011 9:32:16 PM

Aby was called into the Ops Center for 11 to 7 this evening. As it turned out, he was called in even earlier, and is there now. King will act for him tomorrow.

From: [Haney, Catherine](#)
To: [Kokajko, Lawrence](#)
Subject: RE: OFFER: Current situation in Japan and impacts on NRC
Date: Wednesday, March 16, 2011 12:30:00 PM

Lets do that.

From: Kokajko, Lawrence
Sent: Wednesday, March 16, 2011 12:30 PM
To: Haney, Catherine
Subject: FW: OFFER: Current situation in Japan and impacts on NRC

I noted the requests for assistance at today's team meeting. Hence, Wes' response below. I would like to add for your benefit that SwRI has done engineering and scientific work at this particular facility. It is your call if you want to inform the OEDO and others. Please let me know.

From: Wesley Patrick [<mailto:wpatrick@cnwra.swri.edu>]
Sent: Wednesday, March 16, 2011 11:45 AM
To: Haney, Catherine; Kokajko, Lawrence; Mohseni, Aby; Davis, Jack
Subject: OFFER: Current situation in Japan and impacts on NRC

All,

The current and evolving situation in Japan is of great concern and obvious impact. Although the impacts are greatest in Japan, they clearly reach to NRC as it fulfills its responsibilities in the US and within the international community. In this context, I and others at CNWRA have strong interest in assisting NRC in whatever way and with whatever means are appropriate.

Certainly, there are various restrictions that must be considered. These include such things as (i) prohibition on contractors performing inherent functions of government, (ii) associated liability and indemnification, and (iii) particularly if we are dispatched to Japan, radiological risks and medical issues. These are countered, however, by what we could bring to bear to assist NRC. As you are well aware, we have a breadth of relevant technical expertise, understanding of NRC roles and responsibilities, familiarity of the NPP regulatory construct, programmatic knowledge and sensitivity, and in many cases operations and communications expertise. These are skills—motivated by a deep desire to assist NRC and Japan—that could help fill the gap as your organization is stressed to the limits.

I respectfully request that you consider this offer. If you see roles and responsibilities we could assume, gaps we can fill, or slack we can take up, please contact me as soon as possible. Working through SwRI management, we will do everything we can to address with you any issues you may have in this regard.

Wesley C. Patrick, Ph.D.

2/65

Vice President, Geosciences and Engineering Division

Southwest Research Institute

wpatrick@swri.org www.ged.swri.org

From: Haney, Catherine
To: Walker, Dwight
Subject: Issue as Box
Date: Wednesday, March 16, 2011 9:38:00 AM

Title – Volunteers to Support Agency Response on Japanese Event

Yesterday, I received several requests to identify individuals who would be interested in responding to the Japanese event. Specifically,

1. NSIR has asked for volunteers who would staff selected positions in the Ops Center. These positions are listed below. Obviously, previous Ops Center training and experience is preferred but NSIR is now considering others. Note, you will be volunteering for shift work (either 8 hr or 12 hr) as the Ops Center is being staffed 24/7.
2. NSIR has asked us to identify individuals who will be sent to replace the team that has been deployed to Japan. The qualifications have not been specified but I believe they are looking for individuals with BWR and/or severe accident mitigation experience. The new team is targeted to leave on March 27 and return on April 9.
3. OIP has asked us to identify individuals, who (1) have had desk officer or other international experience and (2) are interested in helping them in the event that current staff cannot meet their work demands. (These individuals could be deployed to Japan with the team under 2 above.)

If you are interested in any of these opportunities and your workload supports this effort, please discuss your interest with your Branch Chief ASAP. I have asked that the Divisions provide me a consolidate list of volunteers by COB today, March 16.

Information needed –

Opportunity 1 – name, current job title, Ops Center Position of interest, previous training/experience in Ops Center or similar position (outside the Agency).

Opportunity 2 – name, current job title, status of passport, brief description of experience/training that supports this type of assignment.

Opportunity 3 – name, current job title, brief description of international experience/training that would support this assignment.

Ops Center Positions currently being staffed as of March 14.

Liaison Team

LT Director
LT Coordinator
LT Federal Liaison (2)
LT Congressional Liaison (2)
LT International Liaison (2)

Protective Measures Team

PMTR Director
PMTR Coordinator
PMTR Protective Actions Assistant Director
PMTR RAAD (Radiological Assessment Assistant Director)
PMTR Dose Assessment (RASCAL)
RASCAL Developer
PMTR GIS Analyst (Geographical Information Systems)

2/6/6

PMTR Meteorologist

Reactor Safety Team

RST Director

RST Coordinator

Severe Accident / PRA

BWR Expert

RST Comm / ERDS Operator

RST Support (Seismology Q&A)

Merzke, Daniel

From: Merzke, Daniel
Sent: Wednesday, March 16, 2011 12:12 PM
To: Howe, Allen
Subject: FW: Japan Event Commission Meeting

Allen, this is preliminary information from SECY.

Dan

From: Baval, Rochelle
Sent: Wednesday, March 16, 2011 12:09 PM
To: Andersen, James
Cc: Merzke, Daniel; Laufer, Richard
Subject: RE: Japan Event Commission Meeting

Will do. We've called around to the Commission offices for availability (at this point most likely will be on Monday), and now we're trying to get confirmation from the Chairman's office so we can go to the other Commissioners' offices. I put the "outline" you sent me into scheduling note format, and am about to give it to Annette to review. There would be two parts, a public session, then a closed session on strategy and agenda planning.

Rochelle

From: Andersen, James
Sent: Wednesday, March 16, 2011 12:07 PM
To: Baval, Rochelle
Cc: Merzke, Daniel
Subject: Japan Event Commission Meeting

Rochelle,

We are starting to get questions from the staff on this meeting. Can you please use Dan and myself as the OEDO contacts when you find out any information. I would like to try to keep this somewhat in process. Thanks.

Jim A.

2/67

Muessle, Mary

From: Muessle, Mary
Sent: Wednesday, March 16, 2011 9:32 AM
To: Evans, Michele; Hackett, Edwin; Brenner, Eliot; Schmidt, Rebecca; Powell, Amy; Droggitis, Spiros; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Greene, Kathryn; Stewart, Sharon; Howard, Patrick; Miller, Charles; Moore, Scott; Cohen, Miriam; Tracy, Glenn; Haney, Catherine; Dorman, Dan; Johnson, Michael; Holahan, Gary; Leeds, Eric; Boger, Bruce; Grobe, Jack; Zimmerman, Roy; Campbell, Andy; Sheron, Brian; Uhle, Jennifer; Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Casto, Chuck; Satorius, Mark; Pederson, Cynthia; Collins, Elmo; Howell, Art; Andersen, James; Akstulewicz, Brenda; Belmore, Nancy; Quesenberry, Jeannette; Kreuter, Jane; Armstrong, Janine; Hudson, Sharon; Ellis, Marv; Hasan, Nasreen; Ronewicz, Lynn; Schumann, Stacy; Daniels, Stanley; Casby, Marcia; Thomas, Loretta; Walker, Dwight; Sprogeris, Patricia; Schwarz, Sherry; Ross, Robin; Cohen, Shari; Riddick, Nicole; Flory, Shirley; Veltri, Debra; Matakas, Gina; ODaniell, Cynthia; Miles, Patricia; Lee, Pamela; Dubose, Sheila; Buckley, Patricia; Tomczak, Tammy; Owen, Lucy; Tannenbaum, Anita; Gusack, Barbara; Harrington, Holly; Ricketts, Paul; Howell, Linda; Higginbotham, Tina; Ross, Brenda; Boyce, Thomas (OIS); Schaeffer, James; Jackson, Donald
Cc: Williams, Shawn; Andersen, James; Ramsey, Jack
Subject: Additional Staff requirements outside Ops Center Long Term Staffing
Importance: High

OPA and OIP expect large call volumes today and in the next few weeks given expected news from Japan. OIP is looking for names of people who have desk officer or other OIP or international experience to assist them in the event that current staff cannot meet the work demands for call inquiries as well as ongoing international work. Please provide Shawn Williams and I a list of names that could serve to help OIP in this capacity and their general availability over the next week and month. It is difficult to determine the need level at this time, but as in the Op Center, it is anticipated OIP will have for an additional month. We would like the list of names by COB today.

Thanks
Mary

Mary Muessle
Assistant for Operations - Acting
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1703 office
301-415-2700 fax

From: Evans, Michele
Sent: Tuesday, March 15, 2011 5:53 PM
To: Hackett, Edwin; Brenner, Eliot; Schmidt, Rebecca; Powell, Amy; Droggitis, Spiros; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Greene, Kathryn; Stewart, Sharon; Howard, Patrick; Miller, Charles; Moore, Scott; Cohen, Miriam; Tracy, Glenn; Haney, Catherine; Dorman, Dan; Johnson, Michael; Holahan, Gary; Leeds, Eric; Boger, Bruce; Grobe, Jack; Zimmerman, Roy; Campbell, Andy; Sheron, Brian; Uhle, Jennifer; Dean, Bill; Lew, David; McCree, Victor; Wert, Leonard; Casto, Chuck; Satorius, Mark; Pederson, Cynthia; Collins, Elmo; Howell, Art; Muessle, Mary; Andersen, James; Akstulewicz, Brenda; Belmore, Nancy; Quesenberry, Jeannette; Kreuter, Jane; Armstrong, Janine; Hudson, Sharon; Ellis, Marv; Hasan, Nasreen; Ronewicz, Lynn; Schumann, Stacy; Daniels, Stanley; Casby, Marcia; Thomas, Loretta; Walker, Dwight; Sprogeris, Patricia; Schwarz, Sherry; Ross, Robin; Cohen, Shari; Riddick, Nicole; Flory, Shirley; Veltri, Debra; Matakas, Gina; ODaniell, Cynthia; Miles, Patricia; Lee, Pamela; Dubose, Sheila; Buckley, Patricia; Tomczak, Tammy; Owen, Lucy; Tannenbaum, Anita; Gusack, Barbara; Harrington, Holly; Ricketts, Paul; Howell, Linda; Higginbotham, Tina; Ross, Brenda; Boyce, Thomas (OIS); Schaeffer, James; Jackson, Donald
Subject: Follow-up from 4 pm teleconference on Ops Center Long Term Staffing

2/68

Everyone,

Please find attached 1) a list of current positions being staffed in the Ops Center and 2) the staff identified as available to support in Japan.

Regarding additional staff available to support in the ops center, the primary needs are for the specialized positions on the PMT and anyone with previous international experience in OIP.

Regarding support in Japan, please provide any updates/changes to the list by COB March 17. The target time frame for sending these staff members is March 27-April 9, so please consider that when considering staff to put on the list.

Thanks for your support.

Michele

Clayton, Kathleen

From: Leeds, Eric
Sent: Wednesday, March 16, 2011 9:56 AM
To: Virgilio, Martin
Cc: Borchartd, Bill; Weber, Michael; Boger, Bruce; Grobe, Jack
Subject: ACTION: NRR taking the lead for commission meeting

Marty –

NRR was asked to take the lead for this Commission meeting. In addition, we're also taking the following actions:

1. Establishing a media guru to help facilitate Q&As (beyond the current Share-point site) – Bob Nelson will lead the effort.
2. We've started work on a generic communication to NRC licensees based on the Japanese events. We're following the INPO work.

FYI.

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

From: Virgilio, Martin
Sent: Wednesday, March 16, 2011 3:29 AM
To: Borchartd, Bill
Cc: Weber, Michael; Leeds, Eric; Dorman, Dan; Miller, Chris; Lewis, Robert; Doane, Margaret; Powell, Amy; Wiggins, Jim; Casto, Chuck; Brenner, Eliot; Muessle, Mary; Andersen, James; Wittick, Brian; Grobe, Jack; Evans, Michele; Ash, Darren
Subject: FW: commission meeting outline.docx

Bill

Last night the Chairman briefed the Commissioners on the status of the events in Japan and NRC's response. During that meeting the Commissioners suggested NRC hold a Commission meeting either this week or next on the events and the Chairman agreed to the meeting.

Attached is a draft outline for that meeting. We believe this outline could also be used as a tool for organizing a presentation for Congressional Briefings and interactions with the media. We acknowledge the ambitious nature of the outline and the fact that we might not be ready to speak to each of the issues if the Commission meeting is held this week.

Marty

Weber, Michael

From: Weber, Michael
Sent: Wednesday, March 16, 2011 9:47 PM
To: LIA07 Hoc
Subject: Response - Updates for the "Go Books", 2030 EDT, March 16 2011

Thanks, Sara

From: LIA07 Hoc
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Pace, Patti; Speiser, Herald; Gibbs, Catina; Leeds, Eric; Haney, Catherine; Walker, Dwight; Sheron, Brian; Johnson, Michael
Sent: Wed Mar 16 20:39:46 2011
Subject: Updates for the "Go Books", 2030 EDT, March 16 2011

Please find attached updated information for the "Go Books" provided earlier today.

The updates include:

- The 1900, 3/16/11 Status Update
- The 19400, 3/16/11 Talking Points Two-Pager
- The latest ET Chronology
- The latest NRC Press Release (11-050)
- The latest NRC OPA Talking Points
- The latest TEPCO Press Releases
- Statement from US Embassy Tokyo re: protective actions for American citizens in Japan

We are working on pulling together a few other items that were requested, including the Chairman's prepared statement for today's hearing and a set of briefing slides. We will send those out once we have them.

Please let me know if you have any questions or concerns.

-Sara

Sara Mroz
Office of Nuclear Security and Incident Response
US Nuclear Regulatory Commission
sara.mroz@nrc.gov
LIA07.HOC@nrc.gov (Operations Center)

Merzke, Daniel

From: Merzke, Daniel
Sent: Wednesday, April 13, 2011 11:13 AM
To: Dudek, Michael
Cc: Milligan, Patricia; McDermott, Brian; Morris, Scott
Subject: FW: Request from Commissioner Magwood

Michael, do you or Trish know of any meetings scheduled concerning the PAGs, cleanup standards in the US, or re-entry criteria for US citizens in Japan? I know there's a meeting with EPA on 4/21 to discuss the cleanup standard for US, and the Deputies meeting is planned for last week of April/first week of May. I'm not aware of any meetings with other agencies or Congress concerning re-entry criteria. If there are any meetings currently scheduled that you know of, could you let me know ASAP? Thanks.

Dan

From: Virgilio, Martin
Sent: Wednesday, April 13, 2011 10:59 AM
To: Merzke, Daniel
Subject: FW: Request from Commissioner Magwood

Dan

What is your understanding on schedules for future meetings?

From: Bubar, Patrice
Sent: Wednesday, April 13, 2011 9:37 AM
To: Vietti-Cook, Annette; Muessle, Mary; Andersen, James
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Bates, Andrew; Hart, Ken; Laufer, Richard; Baval, Rochelle
Subject: RE: Request from Commissioner Magwood

Annette, Mary and Jim – any update on when we will get a response?

Patty Bubar
Chief of Staff
Office of Commissioner William D. Magwood
U.S. Nuclear Regulatory Commission
301-415-1895

From: Vietti-Cook, Annette
Sent: Wednesday, April 06, 2011 8:03 AM
To: Muessle, Mary; Andersen, James
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Bubar, Patrice; Bates, Andrew; Hart, Ken; Laufer, Richard; Baval, Rochelle
Subject: FW: Request from Commissioner Magwood

Commissioner Magwood is requesting the information on the meetings NRC is being asked to participate in with other federal agencies and the office of the President – relating to Protective Action Guidelines and cleanup levels in the U.S. as well as re-entry guidance for U.S. citizens in Japan.

Can you help in providing a response or point me in the right direction?

2/7/11

JCM
WDM

From: Bubar, Patrice

Sent: Tuesday, April 05, 2011 6:22 PM

To: Vietti-Cook, Annette; Hart, Ken; Bates, Andrew

Cc: Sosa, Belkys; Nieh, Ho; Sharkey, Jeffry; Batkin, Joshua; Tadesse, Rebecca

Subject: Request from Commissioner Magwood

SECY – Commissioner Magwood requests that Commission offices be provided information on the meetings that NRC is being asked to participate in with other federal agencies as well as the Office of the President – relating to Protective Action Guidelines and cleanup levels in this country as well as re-entry guidance for US citizens in Japan.

Thank you and let me know if you have any questions.

Patty Bubar

Chief of Staff

Office of Commissioner William D. Magwood

U.S. Nuclear Regulatory Commission

301-415-1895

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Discussion of the MARCH 16, 2011 PRESS RELEASE DOSE ASSESSMENT ASSUMPTIONS

There are two dose assessments attached to the March 16th press release. Both assessments are worst case hypothetical, computer model analyses of consequences for releases from the Fukushima site. The first assessment assumed a Unit 2 reactor 100% core melt as an unfiltered release from a totally failed containment and actual meteorological conditions during early morning hours of the date indicated. The low dispersion characteristics included low wind speeds, relatively stable air, and light precipitation.

The second assessment represented multiple unit failures: 1) Unit 2 with 33% reactor core damage as an unfiltered release from a totally failed containment ; 2) Unit 3 spent fuel pool with 50% damage (with 180 bundles of spent fuel discharged 105 days ago) ; and 3) Unit 4 spent fuel pool with 100% damage (with 550 bundles of spent fuel discharged 30 days ago) . To account for the combined inventories of the three units, the staff adjusted the reactor power level, fuel burnup and number of assemblies in the calculation. The meteorological conditions for the second assessment also assumed actual conditions, but no precipitation, greater wind speeds, and less stable atmospheric conditions, result in greater atmospheric dispersion. In addition, the source term included two additional days of decay before release. For the multi-unit assessment, the increased decay time before release and the greater atmospheric dispersion significantly reduced the resultant dose estimate.

Although the dose projections for the first assessment are somewhat higher than the second assessment, the differences in the modeling assumptions did not affect the overall conclusion that protective action guides would be exceeded beyond fifty miles. Both assessments are highly speculative, given the lack of actual (representative) site data and assumed no mitigation of the current situation at the time of the press release.

Although there is postulated reactor core damage in Unit 1 and Unit 3, the primary containment structure is reported to be intact.

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Weber, Michael

From: Weber, Michael
Sent: Wednesday, March 16, 2011 5:04 AM
To: LIA07 Hoc
Subject: Response - New Briefing Resource for Japan Response!

No. I'd appreciate paper copies in the ET room.

From: LIA07 Hoc
To: Weber, Michael
Sent: Tue Mar 15 22:40:39 2011
Subject: RE: New Briefing Resource for Japan Response!

So you want the updates emailed directly to you?

From: Weber, Michael
Sent: Tuesday, March 15, 2011 10:28 PM
To: LIA07 Hoc
Subject: Response - New Briefing Resource for Japan Response!

Thanks, Sara. I'll get mine in the Ops Center.

From: LIA07 Hoc
To: Batkin, Joshua; Borchardt, Bill; Virgilio, Martin; Leeds, Eric; Weber, Michael
Sent: Tue Mar 15 22:19:44 2011
Subject: New Briefing Resource for Japan Response!

We have decided to add a new briefing resource, a "Go Book", to support your information needs related to the Japan response.

These "Go Books" will be substantially smaller than the current unwieldy briefing book, with tabs for status updates, two-pager, talking points, NRC press releases, and a few other ET identified reference materials. There will also be a tab for you to add whatever miscellaneous information you would like to include.

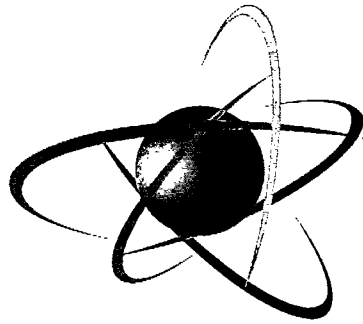
Status updates and the two-pager will be updated for distribution at 6am and 6pm each day. At those times, other information that is in the Go Books will also be updated.

The plan is for this information to be emailed to someone in your office who can update the book for you. **Please provide the name(s) of who you would like to receive the information for updating the books.** Books will be delivered to your offices tomorrow morning.

Thank you,
Sara

Sara Mroz
Office of Nuclear Security and Incident Response
US Nuclear Regulatory Commission
Sara.mroz@nrc.gov
LIA07.HOC@nrc.gov (Operations Center)

2/73



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Events at Fukushima Units 1-4

Bill Dean

March 16, 2011

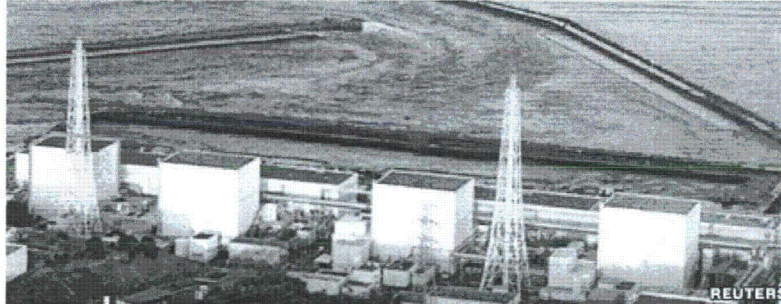
2/14

Fukushima Units 1 - 4



3/11 Earthquake & 3/12 Unit 1 Hydrogen Explosion

After earthquake 11 March



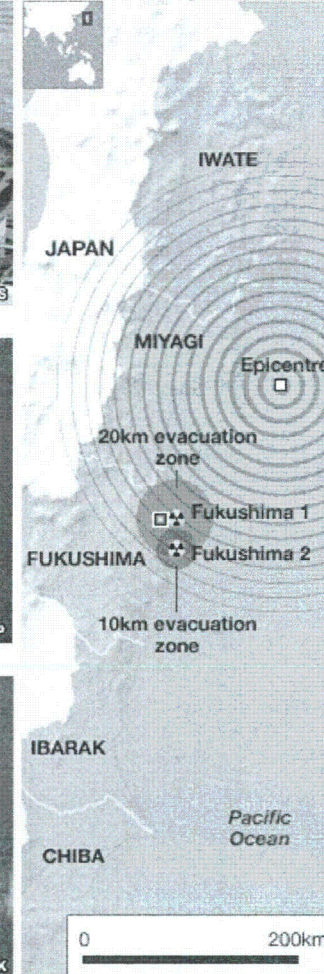
Explosion 0630 GMT 12 March



After explosion 0730 GMT



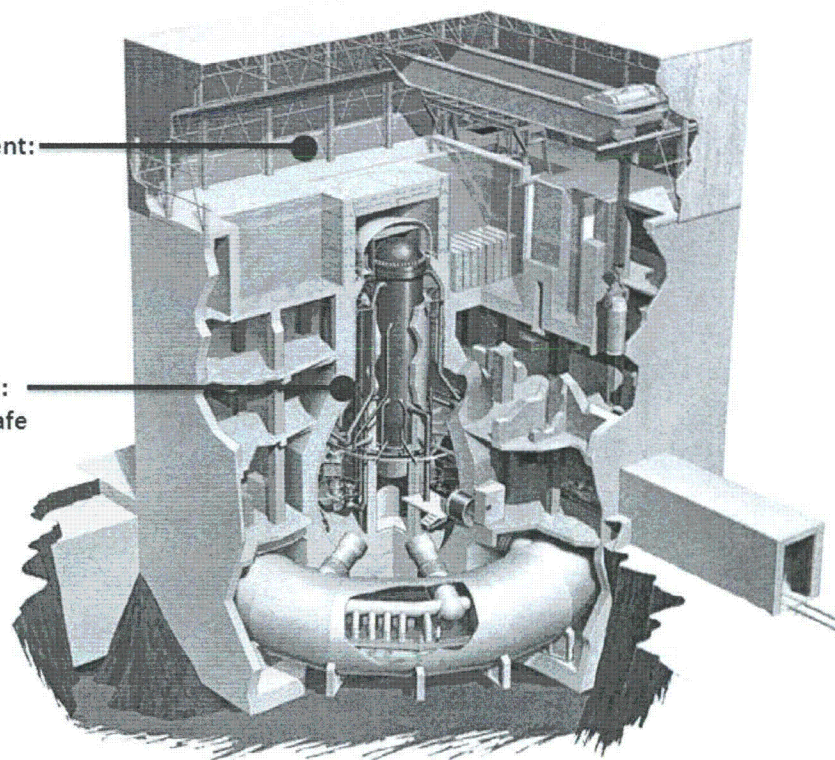
Fukushima plants



BWR with Mark 1 Containment

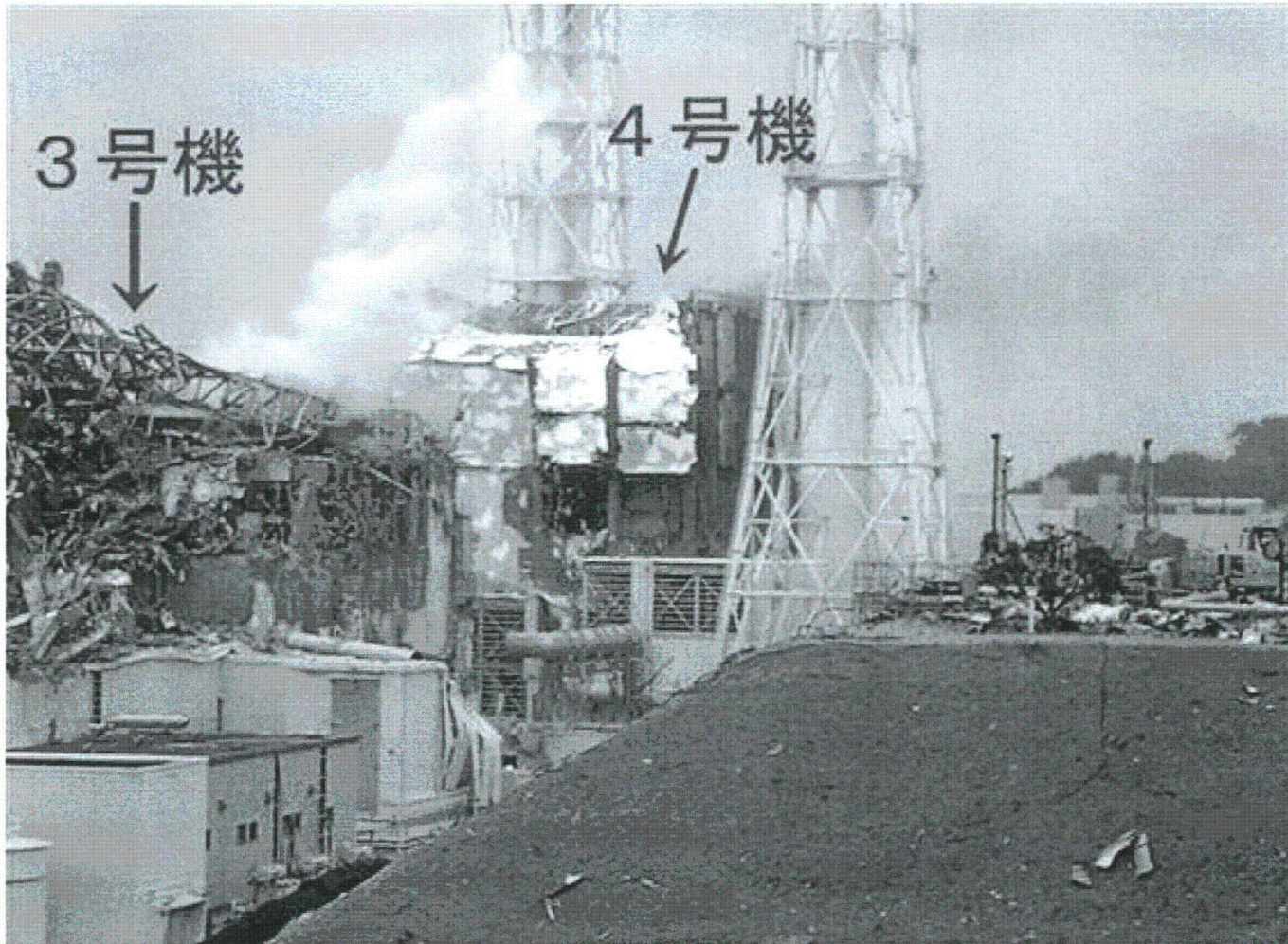
Secondary containment:
Area of explosion at
Fukushima Daiichi 1

Primary containment:
Remains intact and safe



Boiling Water Reactor Design

Most Recent View of Units 3 & 4





Where to Learn More at This Time

The NRC will not provide information on the status of Japan's nuclear power plants. Check the NRC web site or blog for the latest information on NRC actions. Other sources of information include:

USAID -- www.usaid.gov

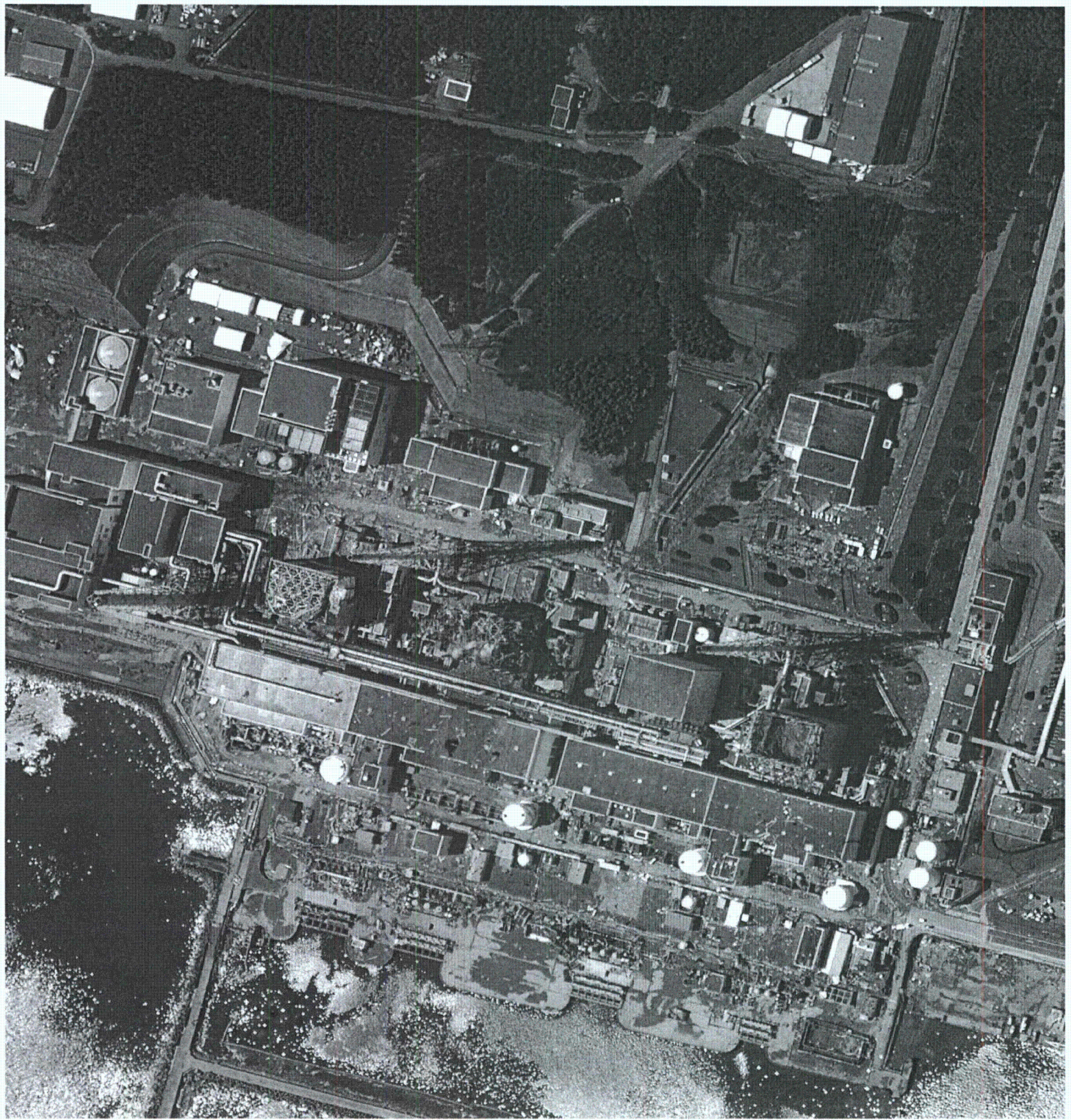
U.S. Dept. of State -- www.state.gov

FEMA -- www.fema.gov

White House -- www.whitehouse.gov

Nuclear Energy Institute -- www.nei.org

International Atomic Energy Agency -- www.iaea.org/press/



From: [Haney, Catherine](#)
To: [Dorman, Dan](#)
Subject: Re: Next week
Date: Thursday, March 17, 2011 5:44:55 AM

I spoke with Mike yesterday and he was still ok with me going even if you are still working in ops center.

I checked your schedule and spoke with Tim to be sure both of us being out of the office doesn't delay budget or other major activities. Looks like things could be delayed until I return.

The big item will be responding to the house request on yucca which will be focussed in hlw.

Be aware, Lawrence is in hawaii all next week. Also Mike, Vonna, and John are all getting asked to take shifts. This is what I am more worried about as far as staffing. I plan to discuss at this mornings mgmt meeting as I don't think we have gotten to the point where the center is staffed by all nmss managers.

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

From: Dorman, Dan
To: Haney, Catherine
Sent: Thu Mar 17 03:46:22 2011
Subject: Next week

They're starting to extend watchbills into next week. I assume you're still on your way to France in a few days and we need to factor office coverage into the decisionmaking. Please let me know if otherwise.

2/75

Rihm, Roger

From: Rihm, Roger
Sent: Thursday, March 17, 2011 11:15 AM
To: Barkley, Richard
Subject: RE: ISFSI map

Thanks, Rich. Mindy and I asking for OCA's input on how we should proceed with all the congressional correspondence we have (and expect to receive) – particularly with regard to response time frames, then I expect we will swing into action (and that action will likely involve you!)

From: Barkley, Richard
Sent: Thursday, March 17, 2011 11:05 AM
To: Rihm, Roger; Landau, Mindy; Ellmers, Glenn
Subject: FW: ISFSI map

I have a feeling this data will come in handy during the next few months. I expect a push to have the NRC reduce the loading in spent fuel pools by transferring some of it to existing Independent Spent Fuel Storage Installations.

I expect Senator Barbara Boxer to make such a request soon.

From: Nicholson, John
Sent: Thursday, March 17, 2011 10:55 AM
To: Screnci, Diane; Sheehan, Neil; Barkley, Richard
Subject: FW: ISFSI map

FYI, Most recent revision of our ISFSI map

John Nicholson
Health Physicist
U.S. NRC, Region I
Division of Nuclear Materials Safety
john.nicholson@nrc.gov
610-337-5236 (office)
610-337-5269 (fax)



From: Gee, Frank
Sent: Monday, March 07, 2011 8:29 AM
To: Nicholson, John
Subject: RE: ISFSI map

John,

The latest version attached,

2/76

Frank Gee
Storage and Transportation Engineer
Division of Spent Fuel Storage and Transportation
Room 6003-3C22, Mail Stop 6003-3D02M
Phone: 301-492-3329
e-mail: Frank.Gee@NRC.Gov
Fax: 301-492-3350



From: Nicholson, John
Sent: Monday, March 07, 2011 8:26 AM
To: Gee, Frank
Subject: ISFSI map

Hey Frank,

Hope all is going well for you. I have to put together a poster on dry cask storage for a public meeting at Peach Bottom in April. What is the most recent version of the ISFSI map?

Thanks.

John Nicholson
Health Physicist
U.S. NRC, Region I
Division of Nuclear Materials Safety
john.nicholson@nrc.gov
610-337-5236 (office)
610-337-5269 (fax)

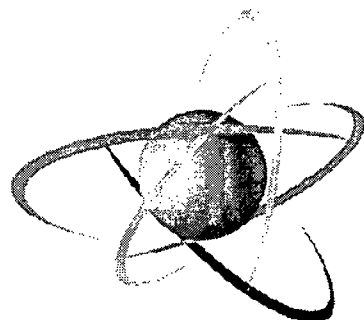


Ellmers, Glenn

From: Ellmers, Glenn
Sent: Thursday, March 17, 2011 10:35 AM
To: Borchardt, Bill; Taylor, Renee; Muessele, Mary; Landau, Mindy
Subject: Slides for All-hands tomorrow
Attachments: Fukushima Presentation.pptx

How is this for a start? Any feedback appreciated.

2/77



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

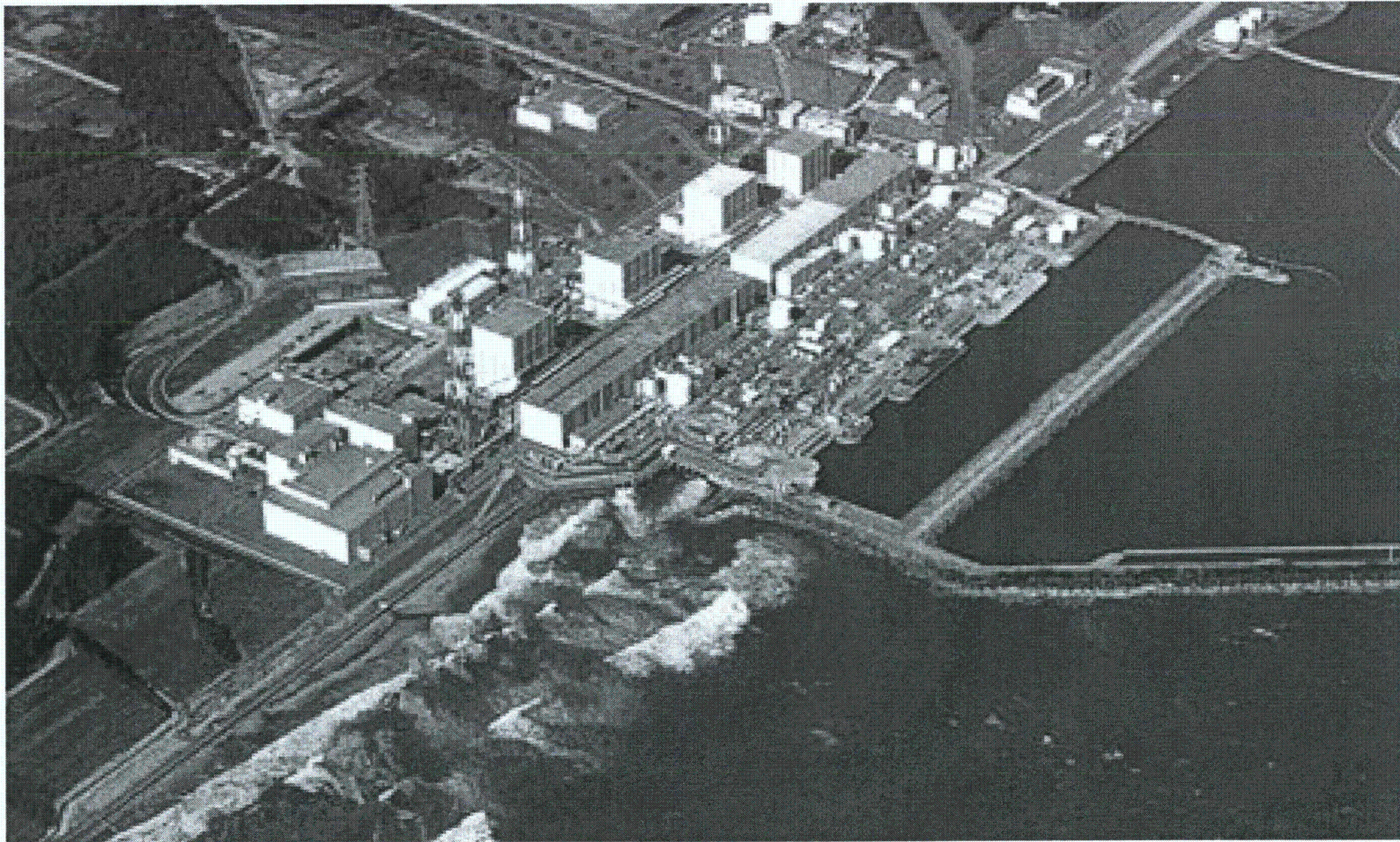
Protecting People and the Environment

Events at Fukushima Units 1-4

March 18, 2011

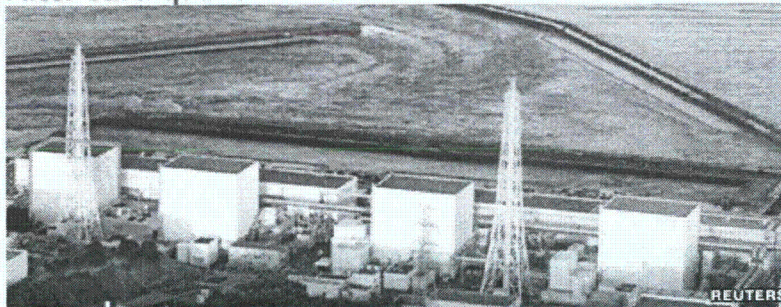
Credit: Bill Dean and Rich Barkley, RI

Fukushima Units 1 - 4



3/11 Earthquake & 3/12 Unit 1 Hydrogen Explosion

After earthquake 11 March



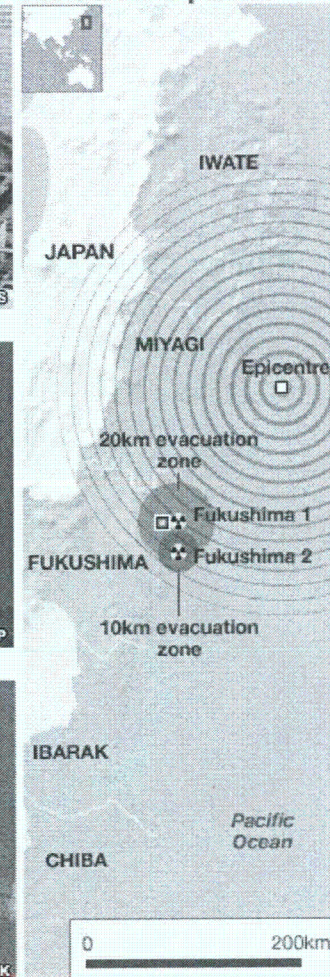
Explosion 0630 GMT 12 March



After explosion 0730 GMT



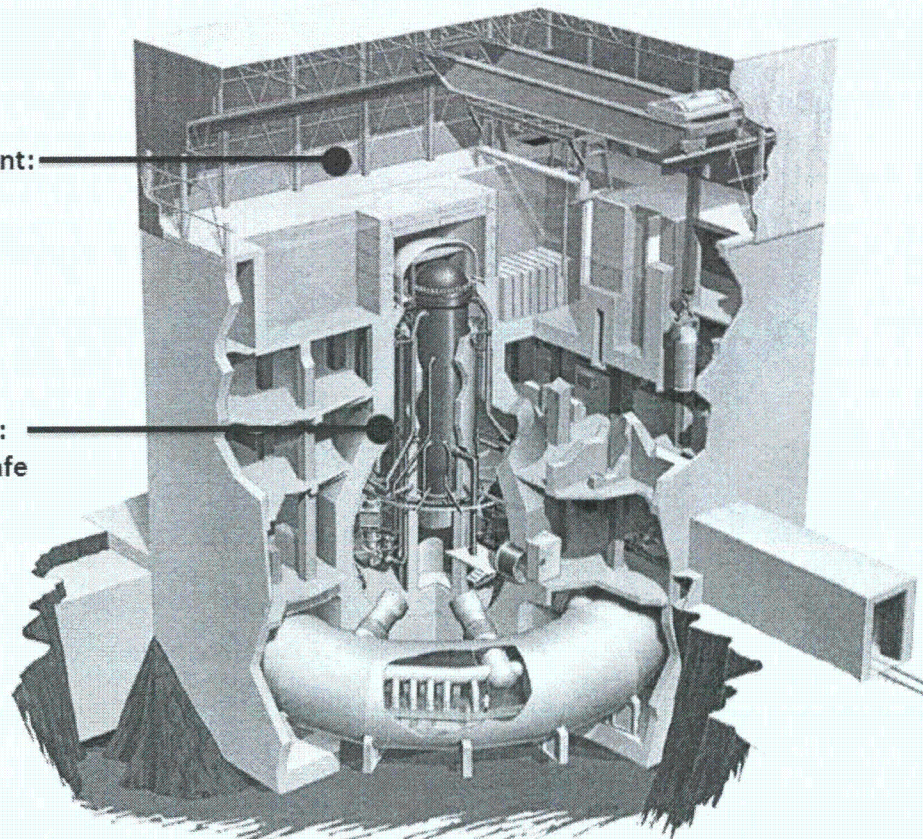
Fukushima plants



BWR with Mark 1 Containment

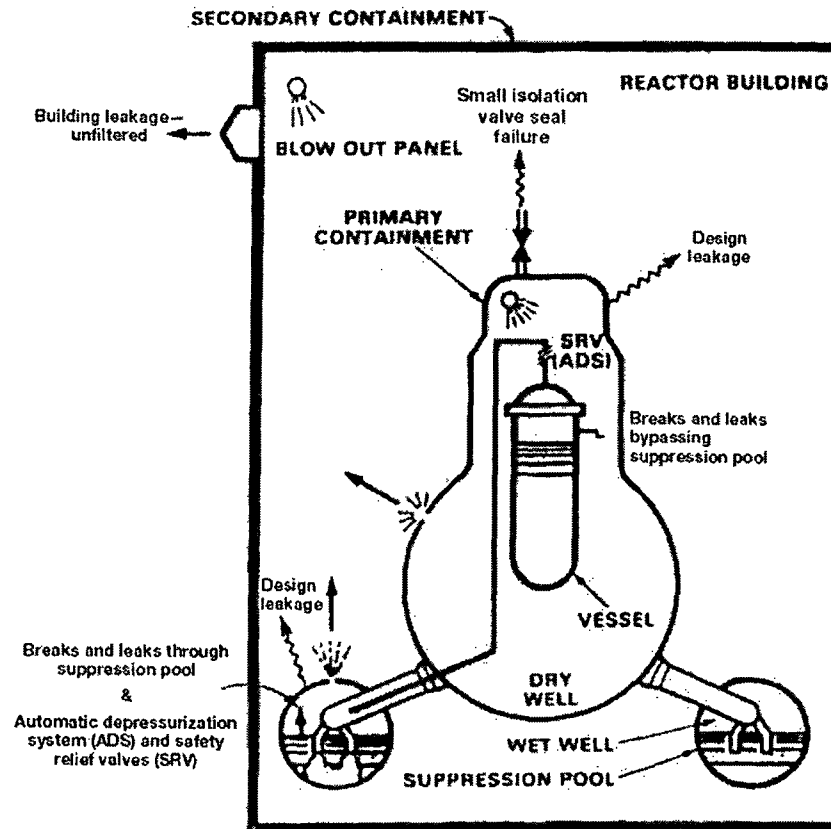
Secondary containment:
Area of explosion at
Fukushima Daiichi 1

Primary containment:
Remains intact and safe

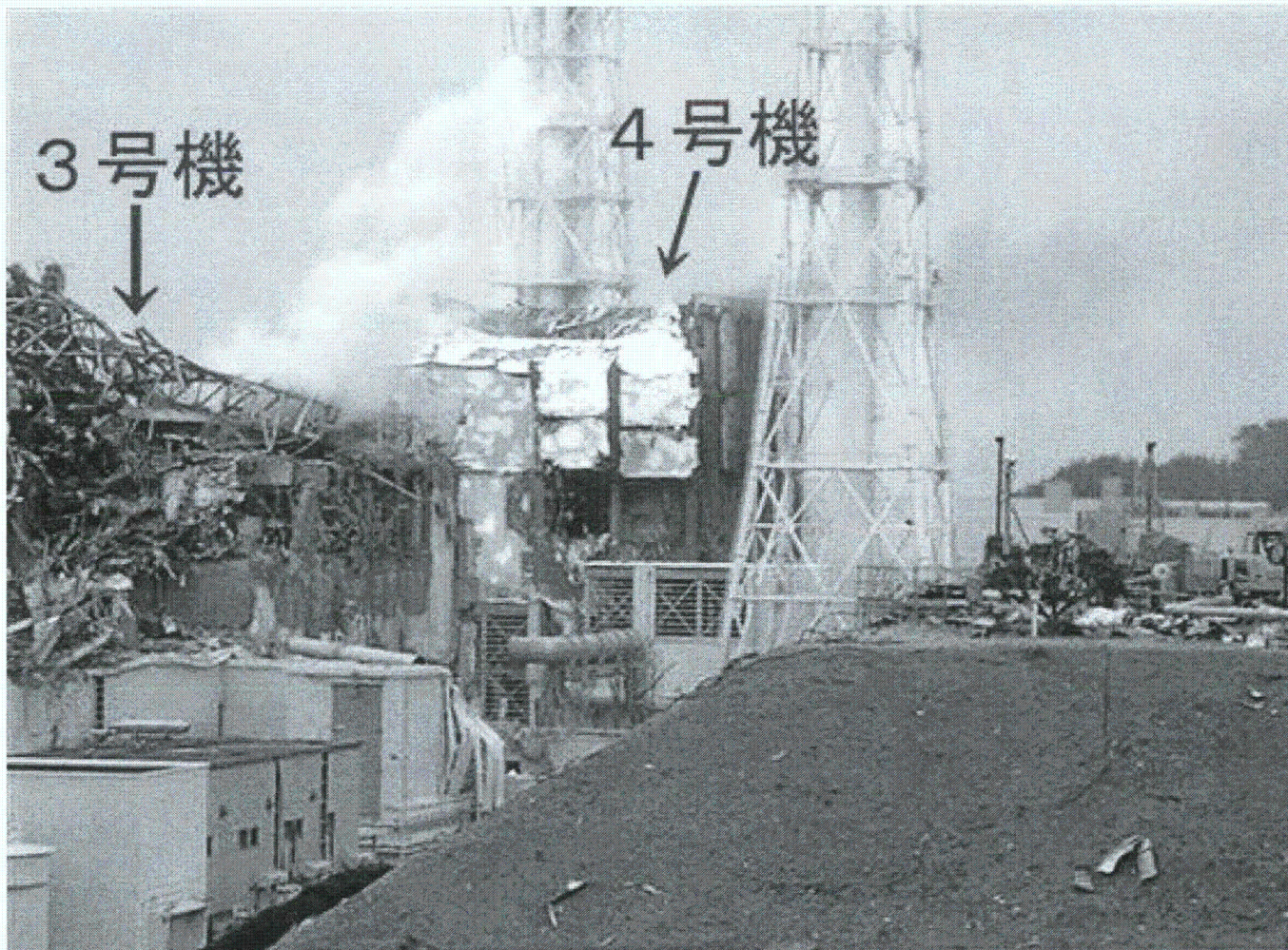


Boiling Water Reactor Design

Mark I Containment Release Pathways Simplified



Most Recent View of Units 3 & 4





Where to Learn More at This Time

Check the NRC web site or blog for the latest information on NRC actions. Other sources of information include:

USAID -- www.usaid.gov

U.S. Dept. of State -- www.state.gov

FEMA -- www.fema.gov

White House -- www.whitehouse.gov"

Nuclear Energy Institute -- www.nei.org

International Atomic Energy Agency -- www.iaea.org/press/

Landau, Mindy

From: Landau, Mindy
Sent: Thursday, March 17, 2011 3:57 PM
To: Nelson, Robert
Cc: Meighan, Sean; Markley, Michael; Rihm, Roger
Subject: RE: Senator Boxer's press release on a letter sent to the Chairman

Thanks Nelson. Since we'll be tasked with responding to the letter, we'd appreciate seeing any responses or briefing package material so we can be consistent. Please send them to me and Roger Rihm when you get a chance....

Mindy

From: Nelson, Robert
Sent: Thursday, March 17, 2011 3:24 PM
To: Landau, Mindy
Cc: Meighan, Sean; Markley, Michael
Subject: FYI: Senator Boxer's press release on a letter sent to the Chairman

See below regarding planned visit to SONGS. Mike Hay, RIV, is coordinating communications with us, and we are expecting to develop responses to the questions sufficient to provide information for the RIV briefing package. On our end, SONGS PM, Randy Hall and Mike Markley are planning to fill any gaps needed from RIV.

NELSON

From: Hay, Michael
Sent: Thursday, March 17, 2011 2:56 PM
To: Markley, Michael; Nguyen, Quynh; Meighan, Sean
Cc: Hall, Randy; Miller, Geoffrey; Lantz, Ryan
Subject: FW: Senator Boxer's press release on a letter sent to the Chairman

Folks,
You may have already seen the attached letter from the Senators in California to the NRC. There are quite a few questions that are raised in the letter for our response.

Additionally, currently Elmo Collins and Commissioner Apostolakis will be meeting with these two Senators next Tuesday at San Onofre.

I'm currently putting together a briefing package for Elmo's trip. I would like to set up a conference call with so we can go through these questions one by one and assign who can answer what and by when.

Your thoughts?

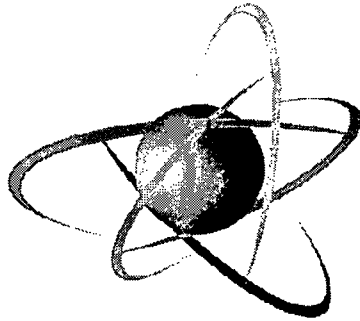
Mike

2/78

Ellmers, Glenn

From: Ellmers, Glenn
Sent: Thursday, March 17, 2011 4:55 PM
To: Borchardt, Bill
Cc: Landau, Mindy
Subject: Fukushima Presentation with map added
Attachments: Fukushima Presentation.pptx

Bill, added a map as the third slide, per your request



U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Events at Fukushima Units 1-4

March 18, 2011

Credit: Bill Dean and Rich Barkley, RI

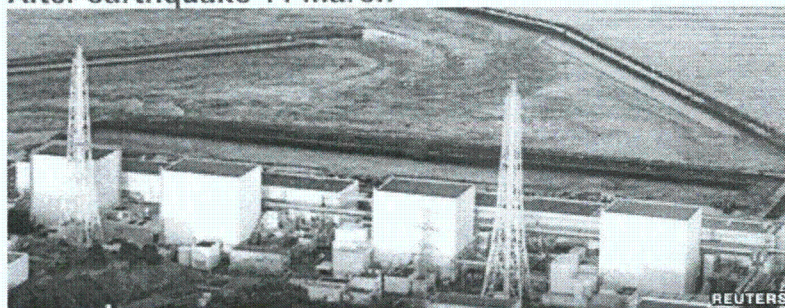
Fukushima Units 1 - 4





3/11 Earthquake & 3/12 Unit 1 Hydrogen Explosion

After earthquake 11 March



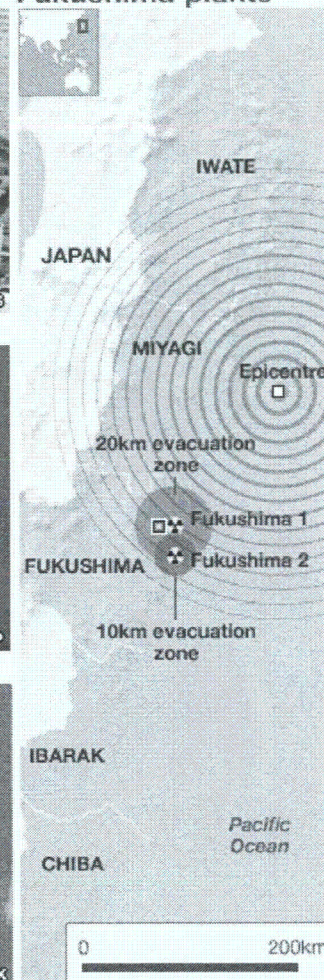
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After explosion 0730 GMT



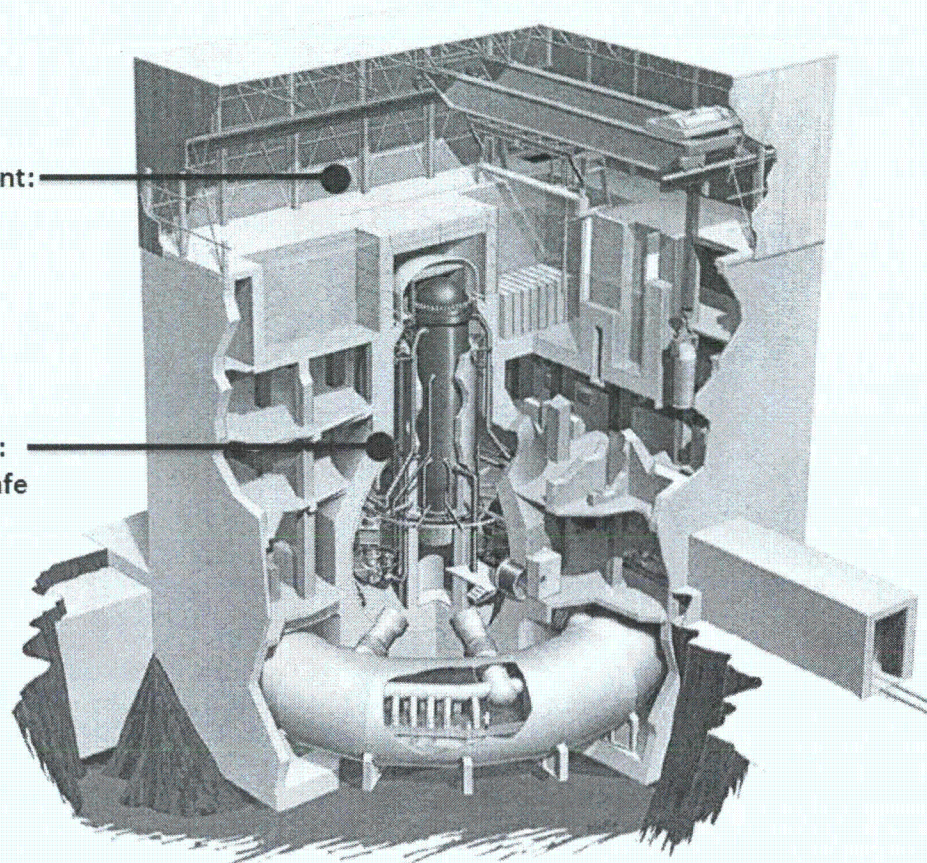
Fukushima plants



BWR with Mark 1 Containment

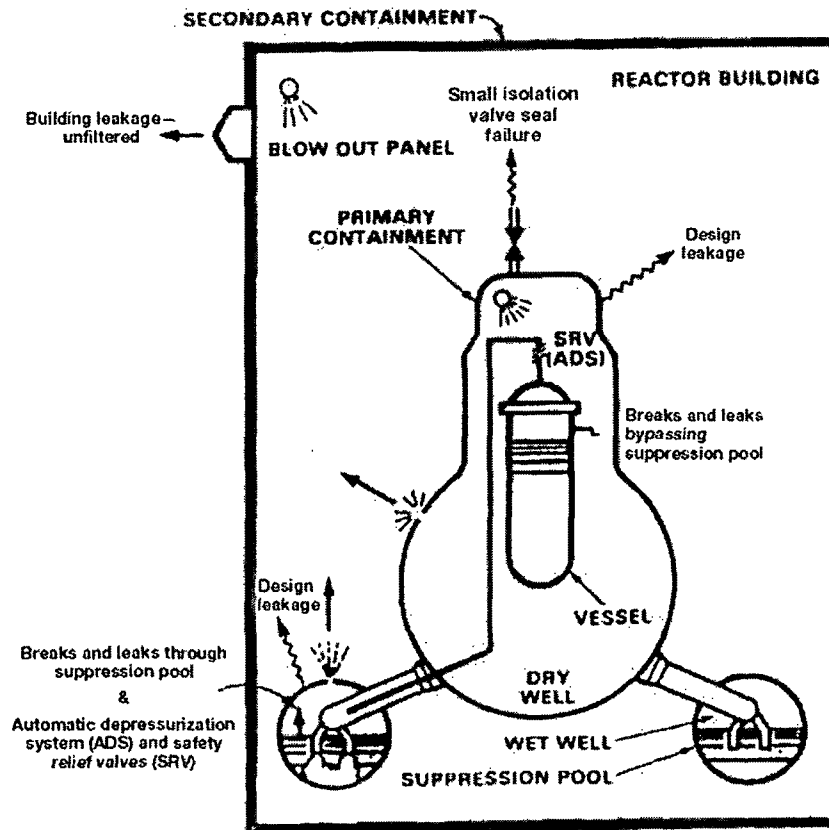
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Area of explosion at
Fukushima Daiichi 1

Primary containment:
Remains intact and safe

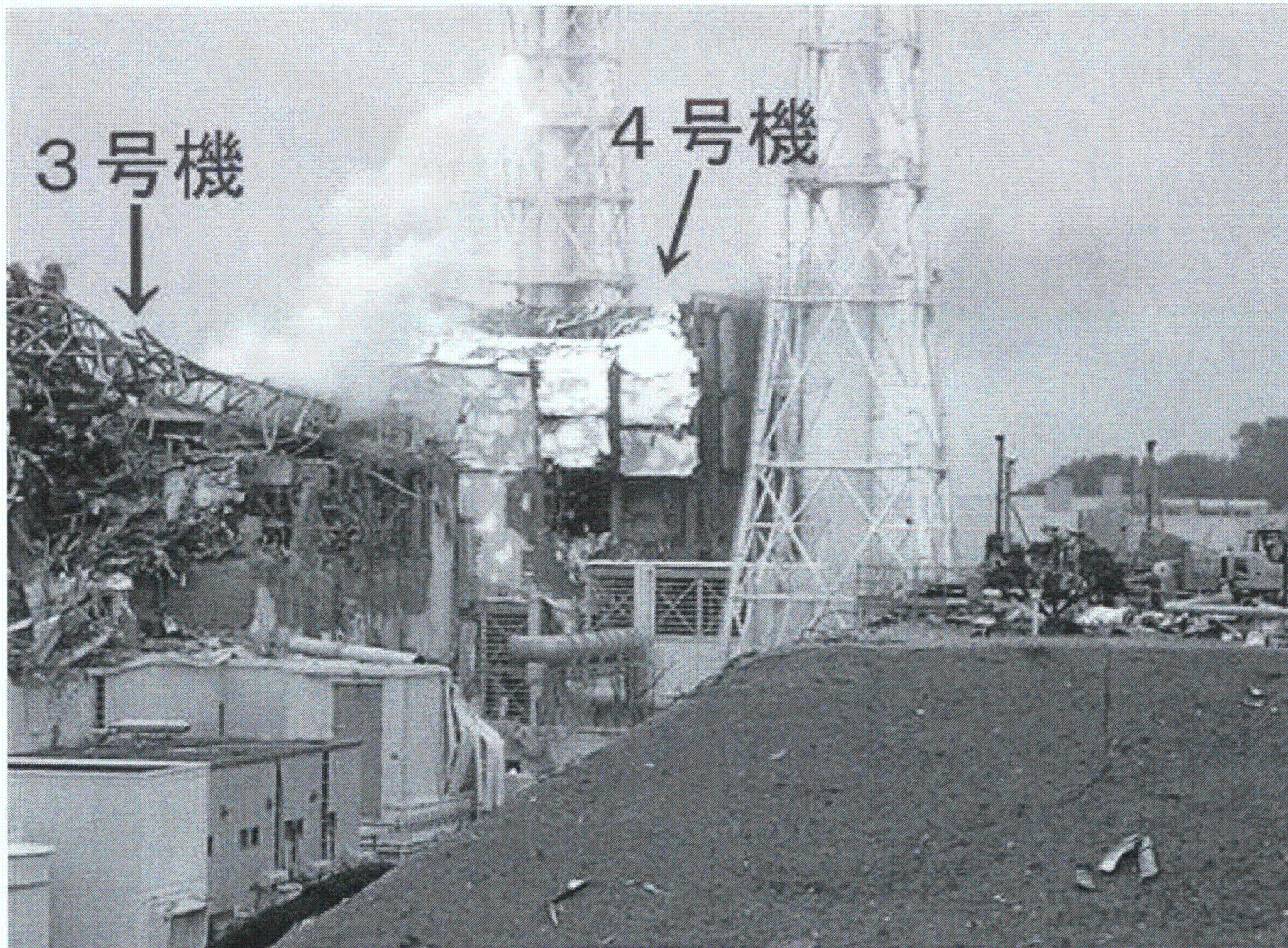


Boiling Water Reactor Design

Mark I Containment Release Pathways Simplified



Most Recent View of Units 3 & 4





Where to Learn More at This Time

Check the NRC web site or blog for the latest information on NRC actions. Other sources of information include:

USAID -- www.usaid.gov

U.S. Dept. of State -- www.state.gov

FEMA -- www.fema.gov

White House -- www.whitehouse.gov"

Nuclear Energy Institute -- www.nei.org

International Atomic Energy Agency -- www.iaea.org/press/

Clayton, Kathleen

From: Bowman, Gregory
Sent: Thursday, March 17, 2011 9:05 AM
To: Borchardt, Bill
Subject: FYI - MACCS Code

Importance: High

Bill,

I learned from RES that the MACCS Code is capable of running out to 8,000 miles. Sandia is currently conducting code runs with an adjusted source term. However, it sounds like the results might not be all that accurate at that distance.

I understand that the Chairman was interested. I'll check with Josh to make sure he's gotten this information.

Greg

From: Sheron, Brian
Sent: Thursday, March 17, 2011 8:55 AM
To: Bowman, Gregory
Subject: FW: MACCS Code

Greg, I got a call last night from Trish Holahan. She was asking about the MACCS code and how far out it could calculate. I told her I thought it could calculate beyond 50 miles (current limit of the RASCAL code). She said the Chairman wanted to know if it could calculate from Japan to the U.S. west coast. I said I did not know how far it could calculate or the accuracy. She said the Chairman was asking, and I said that Charlie Tinkler was probably the best person to ask. She said they would try to call Charlie.

Below is the response. I do not know if Trish has seen this yet, or whether she has forwarded it to the Chairman. Can you check with Josh and see that the Chairman either has gotten this, or give it to him.

We are currently having Sandia do MACCS runs with an adjusted source term. And we'll report out the results when we receive them.

I have to go to a meeting at DOE this afternoon at Bill B's request, so you can follow up with Jennifer or Kathy Gibson. Jennifer will be attending the 10 am alignment meeting today.

From: Gibson, Kathy
Sent: Thursday, March 17, 2011 8:44 AM
To: Sheron, Brian; Uhle, Jennifer
Cc: Scott, Michael; Santiago, Patricia; Holahan, Patricia
Subject: Fw: MACCS Code

Preliminary answers on how far out MACCS can go. We are pursuing further information with Sandia.

2/80

From: Schaperow, Jason
To: Gibson, Kathy
Cc: Tinkler, Charles; Chang, Richard; Gonzalez, Sergio
Sent: Thu Mar 17 08:38:52 2011
Subject: RE: MACCS Code

Hi Kathy,

I spoke with Charlie at 10:00 last night. He said he checked and MACCS can calculate out to 8000 miles. We usually run it out to 1000 miles. Validation out beyond 30 miles or so gets to be questionable.

Yesterday, Sandia got source terms together for a MACCS calculation. We think we are now in pretty good shape for some MACCS calculations. However, it appears that our key MACCS expert (Nate Bixler) is on travel, possibly here in the DC area. Richard and I are tracking him down now, and should be able to find him once it is around 8:00 Mountain Time (Albuquerque).

Jason

From: Gonzalez, Sergio
Sent: Thursday, March 17, 2011 8:29 AM
To: Chang, Richard; Schaperow, Jason; Nosek, Andrew; Navarro, Carlos
Cc: Santiago, Patricia
Subject: MACCS Code

Good Morning:

Kathy wants to now by 8:30am

How far out can MACCS calculate? What is the limitation? Validation data?

Thanks,

Sergio E. Gonzalez

Program Manager (NSPDP), Special Projects Branch
Division of Systems Analysis
Office of Nuclear Regulatory Research
Phone- 301-251-7453
Sergio.Gonzalez@nrc.gov

From: [Doolittle, Elizabeth](#)
To: [Ordaz, Vonna](#); [Weaver, Doug](#); [Kokajko, Lawrence](#); [Mohseni, Aby](#); [Davis, Jack](#); [Kinneman, John](#); [Tschiltz, Michael](#); [Bailey, Marissa](#)
Cc: [Smith, Shawn](#); [Dorman, Dan](#); [Haney, Catherine](#)
Subject: IN 11-xx B5b Earthquake.docx
Date: Thursday, March 17, 2011 4:43:31 PM
Attachments: [IN 11-xx B5b Earthquake.docx](#)

For your info....the attached file contains as draft IN about the effects of the earthquake.
No action is asked of NMSS.

Beth

2/81

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

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

ADDRESSEES

All holders of 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.

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

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, including damage to the cooling water systems, a sustained loss of both the off-site and on-site power systems, and a loss of spent fuel pooling (SFP) cooling. Efforts to restore power to emergency equipment have been impacted by damage to the surrounding areas due to the tsunami and earthquake.

Tokyo Electric Power Company, the operator of the plant, resorted to injecting sea water and boric acid into the reactor vessels Units One through Three, which had been operating at the time of the earthquake and subsequently scrammed, in an effort to cool the fuel and ensure they remained shutdown. Hydrogen explosions from overheated fuel-water reaction damaged the secondary containment, apparently leaving the primary containment functional in all three units. In addition, all three units suffered from decreasing SFP levels.

ML110760432

Units Four through Six had been shutdown for refueling outages at the time of the earthquake, with the core for Unit Four offloaded to the SFP. Subsequent damage to the Unit Four SFP resulted in the inability for the SFP structure to retain water and thus completely drained the SFP of cooling water. The SFPs for Units Five and Six appeared intact, but heating up.

The areas surrounding Fukushima Daiichi were evacuated under the instructions of the Government of Japan.

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

Appendix A to 10 CFR Part 50, General design criteria (GDC) 2, "Design Bases for Protection against Natural Phenomena," or, as appropriate, similar 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, tsunamis, and seiches without loss of capability to perform their safety functions. The design bases for these SSCs reflects: (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 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, (designated safeguards information (SGI)), which 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 is designated SGI and is commonly referred to as the B.5.b Phase 1 Guidance.

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) to gather information on actions taken in response to the February 25, 2005, guidance. The NRC staff then convened assessment panels to evaluate the adequacy of licensee actions taken to date. These assessment panels developed acceptance criteria to determine the adequacy of licensee responses to each of the 34 expectations identified in Attachment B to the B.5.b Phase 1 Guidance. On January 18 and 26, 2006, the NRC staff met with industry representatives and provided further clarifying information, including staff acceptance criteria on how licensees could meet Section B.5.b of the ICM Order. The NRC clarifying information for acceptance of each

expectation was disseminated in Section 05.02.c and 05.02.d of TI 2515/168 (SGI). This clarifying information represents acceptable methods, along with staff acceptance criteria, for satisfying the expectations. The staff used this clarifying information in developing its safety evaluation and inspection of current reactor licensee's compliance with Section B.5.b of the ICM Order.

In December 2006, 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, 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.

On March 27, 2009, the NRC amended 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," and Part 73, "Physical Protection of Plants and Materials," with new requirements published in the *Federal Register* dated March 27, 2009 (74 FR 13926). This rulemaking added paragraph (i) to 10 CFR 50.34, "Contents of applications; 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) in order to impose the same mitigating strategies requirements on new 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 described in Section 50.54(hh) are for addressing 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, including natural phenomena such as those described in GDC 2 (i.e., earthquakes, tornadoes, floods, tsunami, and seiches), without regard to the GDC 2 limitation in magnitude of the design bases for the natural phenomena.

NRC regulations at 10 CFR 50.63 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’s functions during seismic events appropriate for the site and development of mitigating strategies of potential vulnerabilities.

Assessment of the implications of beyond design-basis natural phenomena, including earthquakes, is continuing as more information becomes available. In the near term, the NRC is considering additional generic communications and additional action that requests operating plants to provide specific information relating to their facilities to enable the NRC staff to complete the Regulatory Assessment. The NRC staff is currently developing a TI in order to perform independent assessment of nuclear power plant readiness to address beyond design-basis natural phenomena under the Reactor Oversight Process.

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.

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.

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DATE	03/17/2011 email	03/17/2011		

OFFICIAL RECORD COPY

From: [Haney, Catherine](#)
To: [Evans, Michele](#)
Subject: ET Watch Bill
Date: Thursday, March 17, 2011 10:13:00 AM

Can you send me a copy of the latest watch bill for the ET or let me know who I can contact to get a copy?

2/82

From: [Haney, Catherine](#)
To: [Dorman, Dan](#)
Subject: Et watch
Date: Saturday, March 12, 2011 12:04:13 AM

I was on 11 pm call just called in during playback of names.

If they need someone to come in for ET shift, I'm free the rest of the weekend.

From: [Evans, Michele](#)
To: [Haney, Catherine](#)
Subject: RE: ET Watch Bill
Date: Thursday, March 17, 2011 10:25:42 AM
Attachments: [ET Directors Schedule.docx](#)

Cathy,

I was going to send this to the ET members to populate early this afternoon. If you want to tell me your preferences in the near term I'll include those on here before sending out to the rest of the ET. Also, if you know Dan's preferences, include those. Thanks.

Michele

From: Haney, Catherine
Sent: Thursday, March 17, 2011 10:14 AM
To: Evans, Michele
Subject: ET Watch Bill

Can you send me a copy of the latest watch bill for the ET or let me know who I can contact to get a copy?

2/83

From: [Dorman, Dan](#)
To: [Haney, Catherine](#)
Subject: RE: Et watch
Date: Saturday, March 12, 2011 1:45:32 AM

Thanks, we're good. I've got this backshift, but then Bill, Mike and Marty will provide the rest of the weekend coverage. In this monitoring mode, we just have an ET Director and an NSIR/DPR rep.

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

From: Haney, Catherine
Sent: Saturday, March 12, 2011 12:04 AM
To: Dorman, Dan
Subject: Et watch

I was on 11 pm call just called in during playback of names.

If they need someone to come in for ET shift, I'm free the rest of the weekend.

From: [Haney, Catherine](#)
To: [Kinneman, John](#); [Ordaz, Vonna](#)
Cc: [Dorman, Dan](#); [Kokajko, Lawrence](#); [Walker, Dwight](#)
Subject: Watch Bill
Date: Thursday, March 17, 2011 11:35:00 AM

I just spoke with Michelle Evans about ET coverage. She doesn't need anyone for March 21-25 which means Dan should be in the office (although I expect he may want a day or two to recover from this week).

Michelle does need help for the following shifts – if you are available, please email her with your availability (cc: to Dan and me).

March 19 – 7 AM to 3 PM
March 19/20 – 11PM to 7 AM
March 20 – 7 AM to 3 PM

2/84

From: [Haney, Catherine](#)
To: [Pulliam, Timothy](#)
Subject: RE: 0700 Talking Points Update
Date: Thursday, March 17, 2011 8:28:00 AM

nope

From: Pulliam, Timothy
Sent: Thursday, March 17, 2011 8:22 AM
To: Haney, Catherine
Subject: RE: 0700 Talking Points Update

It's not looking any better, is it.

From: Haney, Catherine
Sent: Thursday, March 17, 2011 8:09 AM
To: Mohseni, Aby; Kokajko, Lawrence; Davis, Jack; Ordaz, Vonna; Weaver, Doug; Bailey, Marissa; Tschiltz, Michael; Kinneman, John; Pulliam, Timothy
Subject: FW: 0700 Talking Points Update

From: LIA07 Hoc
Sent: Thursday, March 17, 2011 7:27 AM
To: LIA07 Hoc; Borchardt, Bill; Virgilio, Martin; Weber, Michael; Jaczko, Gregory; Pace, Patti; Speiser, Herald; Gibbs, Catina; Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael; Walker, Dwight; Flory, Shirley; Ostendorff, William; Svinicki, Kristine; Apostolakis, George; Magwood, William
Subject: 0700 Talking Points Update

Please find attached a 0700 NRC talking points. This update corrects a statement in the 0600 talking points regarding the US State Department's actions for its employees in Japan.

Please let me know if you have any questions or concerns.

Thank you,

-Jim

Jim Anderson
Office of Nuclear Security and Incident Response
US Nuclear Regulatory Commission
james.anderson@nrc.gov
LIA07.HOC@nrc.gov (Operations Center)

2/85

From: [Haney, Catherine](#)
To: [Grobe, Jack](#)
Subject: RE: 2 From NMSS available with BWR Experience
Date: Monday, March 14, 2011 10:20:00 AM

Will do.

Does this mean there is high likelihood they will be going?

From: Grobe, Jack
Sent: Monday, March 14, 2011 9:46 AM
To: Meighan, Sean; Haney, Catherine
Subject: Fw: 2 From NMSS available with BWR Experience

Cathy

Please also get Sean passport information.
Jack Grobe, Deputy Director, NRR

From: Haney, Catherine
To: Leeds, Eric; Grobe, Jack; Boger, Bruce
Sent: Mon Mar 14 08:15:08 2011
Subject: 2 From NMSS available with BWR Experience

Lawrence is a licensed operator on this type of plant (SOP 3938). He also taught degraded core cooling post TMI.

Aby has severe accident experience for this type of unit.

I don't know if I'll be able to listen in to the 9:30 call. Just wanted you to know both are available if you need them to go to Japan.

From: Einziger, Robert
To: RST01 Hoc
Cc: Ruland, William; Dudes, Laura; McIntyre, David; Einziger, Robert; Haney, Catherine; Dorman, Dan; Gordon, Matthew; Rahimi, Meraj; Ordaz, Vonna; Pstrak, David
Subject: RE: N2 on dry spent fuel
Date: Thursday, March 17, 2011 3:57:23 PM
Attachments: Proposal to handle dried Spent fuel pool.docx

In addition to the information in the attachment, my colleague Matt Gordon informed me that enough liquid N2 to fill a pool 40' x 40' x 100' (probably on the order of the size of the SNF pool in Japan) could be contained in a container about 6' x6' x6'. A tank this size should be easily attained from any Liquid gas supplier. The tank could be lowered by helicopter into the pool away from the fuel then opened. If you could get liquid Argon, you might not even have to get it directly into the pool but rather suspend the tank over the pool and open the valve remotely.

From: RST01 Hoc
Sent: Thursday, March 17, 2011 3:45 PM
To: Einziger, Robert
Cc: Ruland, William
Subject: N2 on dry spent fuel

Bill Ruland wanted me to request your input on putting liquid N2 into a dry spent fuel pool. You may have sent it previously. Please send again to this operations center address

Frank Collins
RST Coordinator

2/86

Proposal to handle dried spent fuel pool

**RE Einziger, Ph.D.
SFST/MNSS/NRC**

Credential: I have over 30 yrs experience at National Laboratories studying the behavior of Spent Fuel rods in an Oxidizing Atmosphere.

The spent fuel consists of UO₂ fuel inside a Zircaloy-2 cladding covered with a Zirconium oxide layer and a layer of CRUD. If the pool goes dry, the rods will heat up until the rate of heat production is balanced by the rate of heat removal by conduction, convection, and radiation. As the rod is heating up the gas inside the rod will be stressing the cladding, that has a lower yield strength and thus the cladding will expand. The expansion will cause the CRUD to flake off and break up to particulate in the 1-10 micron range as it hits the pool floor. This CRUD, with a main radioactive component as Co-60 may become airborne

Somewhere between 600 and 1000C the Zircaloy cladding that has a high concentration of zirconium hydrides on the outer surface may catch on fire. Zirconium hydride is pyrophoric but the ignition temperature is not an intrinsic properties but is dependent on many features including the surface to volume ratio of the cladding.. Concurrently the pressure in the rod will continue to rise until ~750C when the rod will burst, ejecting fission gases and volatiles in the gap including Cs and I compounds. Some fuel particulate will also be ejected.

As these temperatures the exposed fuel will rapidly oxidize to U₃O₈ with a ~32% volume expansion. This expansion will split the cladding from end to end in a relatively short time. The fuel, now in grain size articulate (~10-15 micron) will stay in the cladding as a compact until it experiences a mild physical force at which time it will fall to the bottom of the pool.

Of primary important is to prevent the oxidation of the UO₂ fuel that contains the preponderance of the radionuclides. Unless you can cover the fuel completely with water the fuel will oxide. When water is sprayed on the fuel, steam is formed which further oxidizes the fuel. A better choice would be to put liquid Argon in the pool if it is available. In not then use liquid N₂. The benefits of these gases are that they have a large, (~1000 times) volume expansion when they vaporize thus a small volume has to be put in the pool then the volume of water and more importantly, both will displace the oxygen and prevent the further oxidation of the fuel. (note that this is more effective for the Argon than the N₂). Once the oxygen is displaced, both the fire, if it occurs, and fuel oxidation will stop. At this point it would be best to fill the pool with sand and glass formers and let the fuel melt into a glass. Since the assemblies are ~ 50% dense, and the pool is about 1/2 to 2/3 full (at least it was when I was there in November). The glass layer would be about 3-5 feet high. The molten glass could then be quenched to solidify it. One has to be aware though, if the fuel is allowed to melt into a glass, most of the fission gases, and volatiles trapped in the fuel pellets would escape.

Any success of this plan would be dependent on the availability of liquid gases in Japan, and ability to deliver them. That is out of my range of expertise.

Just a suggestion.

From:

Davidson, Lawrence

To:

Abraham, Susan; Abrams, Charlotte; Ader, Charles; Akstulewicz, Frank; Albert, Ronald; Allwein, Russell; Alston, Timothy; Andersen, James; Anderson, Joseph; Armentrout, Deborah; Ash, Darren; Ash, Melissa; Astwood, Heather; Auluck, Rajender; Austin, Joseph; Ayres, David; Bahadur, Sher; Bailey, Marissa; Bailey, Stewart; Baker, Pamela; Banas, Paul; Barss, Dan; Bartlett, Bruce; Bartley, Jonathan; Bartley, Malion; Batkin, Joshua; Baum, Robin; Bayliff, Shirley; Beardsley, James; Beasley, Benjamin; Bell, Hubert; Bell, Marvin; Bellamy, Ronald; Bellinger, Alesha; Benjamin, Jamie; Benner, Eric; Benney, Brian; Bergman, Thomas; Biggins, James; Bladey, Cindy; Blamey, Alan; Bloom, Steven; Bloomer, Tamara; Blount, Tom; Boger, Bruce; Boland, Anne; Bolduc, Angela; Bonser, Brian; Borchardt, Bill; Borden, William; Bouling, Ramona; Bower, Fred; Bower, Phyllis; Boyce, Tom (RES); Boyce, Thomas (OIS); Brady, Joseph; Brenner, Eliot; Brezovec, Michael; Broaddus, Doug; Brooks, Kenneth; Brown, Frederick; Brown, Tony; Brown, Milton; Brown, Rohn; Bubar, Patrice; Buchholz, Jeri; Buckley, Michael; Bumpass, Sheila; Burns, Stephen; Burritt, Arthur; Burton, Stephen; Burton, William; Bush-Goddard, Stephanie; Cain, Chuck; Caldwell, Robert; Calle, Joselito; Cameron, Jamnes; Campbell, Andy; Campbell, Larry; Campbell, Stephen; Campbell, Vivian; Camper, Larry; Caniano, Roy; Cardenas, Daniel; Carlson, Robert; Carpenter, Cynthia; Case, Michael; Casto, Chuck; Casto, Greg; Cataldo, Paul; Catts, Michelle; Champion, Bryan; Chang, Helen; Chang, Lydia; Cheok, Michael; Chernoff, Harold; Chernoff, Margaret; Chokshi, Niles; Christensen, Harold; Clark, Jeff; Clay, Earnestine; Clayton, Brent; Clifford, James; Cobey, Eugene; Cochrum, Steven; Coe, Doug; Cohen, Miriam; Cohen, Ronald; Cohen, Stephen; Colaccino, Joseph; Coleman, Judy; Collins, Daniel; Collins, Elmo; Conte, Richard; Cook, Christopher; Corbett, James; Cordes, John; Correia, Richard; Costello, Ralph; Coyne, Kevin; Croteau, Rick; Crowe, Eddy; Cruz, Jeffrey; Csontos, Aladar; Cubbage, Amy; Cubellis, Louis; Cullison, David; Curtis, David; Daley, Robert; Daly, Jill; Dambly, Jan; Daniel, Susan; Danna, James; Dapas, Marc; Davis, Henry; Davis, Jack; Davis, Marlene; Dean, Michael; Dean, Bill; Dehn, Janine; Delligatti, Mark; Dembek, Stephen; Demoss, Gary; Dennig, Robert; Dentel, Glenn; Desai, Binoy; Dias, Antonio; Diaz-Toro, Diana; Dickson, Billy; Dingbaum, Stephen; DiPaolo, Eugene; Dixon, John; Dixon-Herrity, Jennifer; Doane, Margaret; Dodmead, James; Doerflein, Lawrence; Donaldson, Leslie; Donnell, Tremaine; Donoghue, Joseph; Doornbos, Roger; Dorman, Dan; Dorsey, Jeryll; Dosch, William; Dreisbach, Jason; Drogotits, Spiros; Dudes, Laura; Dumbacher, David; Duncan, Eric; Dwyer, James; Dyer, Jim; Eads, Johnny; Easson, Pamela; Egan, Dennis; Egli, Richard; Einberg, Christian; Elkins, Scott; Ellegood, John; Elliott, Robert; Ellsbury, Richard; Erlanger, Craig; Ernstes, Michael; Brown, Cris; Evans, Carolyn; Michele.ca@nrc.gov; Farnholtz, Thomas; Felts, Russell; Fenton, Darlene; Ferdas, Marc; Ferrell, Kimberly; Ficks, Ben; Fields, Leslie; Finney, Patrick; Fitch, Karen; Flanders, Scott; Flynn, Sean; Foster, Jack; Franke, Mark; Franovich, Rani; Fredericks, Carl; Freeman, Scott; Fretz, Robert; Frumkin, Daniel; Frye, Timothy; Fuller, Michael; Gaddy, Vincent; Gallo, Jenny; Galloway, Melanie; Gartman, Michael; Gavrilas, Mirela; Giantelli, Adelaide; Gibson, Kathy; Giessner, John; Gliitter, Joseph; Givvines, Mary; Gody, Tony; Golder, Jennifer; Golshan, KG; Gorham, Tajuan; Gott, William; Graham, Thorne; Grancorvitz, Teresa; Grant, Jeffery; Graser, Dan; Gray, Mel; Greene, Kathryn; Grice, Thomas; Griffin, Steven; Grobe, Jack; Hawkins, Kimberly; Gusack, Barbara; Guthrie, Eugene; Guttmann, Jack; Haag, Robert; Habighorst, Peter; Hackett, Edwin; Haeg, Lucas; Haire, Mark; Hall, Donald; Hall, Patricia; Hamzehee, Hossein; Haney, Catherine; Hansell, Samuel; Harris, Tim; Harrison, Donnie; Hatchett, Gregory; Hawkens, Roy; Hay, Michael; Hayden, Elizabeth; Hays, Myra; Heck, James; Heck, Jared; Helton, Shana; Henderson, Pamela; Hickey, James; Hiland, Patrick; Hills, David; Hilton, Nick; Hiltz, Thomas; Hirsch, Patricia; Hoeg, Tim; Hogan, Rosemary; Holahan, Gary; Holahan, Patricia; Holian, Brian; Holland, Crystal; Holody, Daniel; Holonich, Joseph; Holt, BJ; Hopper, George; Howard, Patrick; Howe, Allen; Howell, Art; Howell, Linda; Hoxie, Chris; Hsia, Anthony; Hsu, Caroline; Hsueh, Kevin; Huber, Deborah; Hudson, Jody; Humerrick, David; Hunegs, Gordon; Hunter, James; Huth, Virginia; Hutto, Andy; Huyck, Doug; Imboden, Andy; Itzkowitz, Marvin; Jackson, Deborah; Jackson, Donald; Jackson, Terry; James, Lois; Jankovich, John; Janney, Margie; Jarvis, Rodney; Jenkins, Ronaldo; Jernell, Eleni; Johns, Nancy; Johnson, Michael; Johnson, Clay; Johnson, Robert; Jolicoeur, John; Jones, Bradley; Jones, Evan; Jones, William; Josey, Jeffrey; Joustra, Judith; Julian, Emile; Jung, Ian; Junge, Michael; Kahler, Robert; Kaplan, Michele; Karas, Rebecca; Kellar, Ray; Kelley, Corenthis; Kemerer, Myron; Kemker, Brian; Kennedy, Kriss; Kennedy, Silas; Kerben, Valerie; Kern, David; Khanna, Meena; Kim, Yong; Kimble, Daniel; King, Donald; King, Michael; Kinneman, John; Kirkland, John; Kirkwood, Sara; Klein, Alex; Knutson, Ed; Kobetz, Timothy; Kokajko, Lawrence; Kolaczyk, Kenneth; Konzman, Carl; Koshy, Thomas; Kowal, Mark; Kramer, John; Krohn, Paul; Krsek, Robert; Krupnick, David; Kulesa, Gloria; Kulp, Jeffrey; Kunowski, Michael; Lam, Donna; Lambert, Kenneth; Landau, Mindy; Langan, Scott; Lankford, Jeffrey; Lantz, Ryan; Lara, Julio; Larkin, Grant; Laura, Richard; Layton, Michael; Le, Hong; Lee, Bert; Lee, David; Lee, Richard; Lee, Samson; Lee, Samuel; Leeds, Eric; Lennartz, Jay; Lesser, Mark; Lewis, David; Lewis, Robert; Lipa, Christine; Lombard, Mark; Long, Chris; Lopez, Joseph; Lorson, Raymond; Loudon, Patrick; Lubinski, John; Luehman, James; Lui, Christiana; Lukes, Robert; Lund, Louise; Lupold, Timothy; Lyons-Burke, Kathy; Ma, May; Madden, Patrick; Madison, Wil; Magruder, Stewart; Mamish, Nader; Markley, Michael; Marshall, Jane; Marshfield, Mark; Martin, Gillian; Masnik, Michael; Masse, Todd; Matheson, Mary; Mathew, Roy; Matthews, David; Mattingley, Joel; Maxin, Mark; Mayfield, Michael; McCann, Carrie; McConnell, Keith; McCoppin, Michael; McCoy, Gerald; McCrary, Cheryl; McCree, Victor; McDermott, Brian; McGhee, James; McGill, Clinton; McGinty, Tim; McGowan, Anna; McHale, John; McKelvey, Harold; McKenna, Eileen; McKenney, Christopher; McKirgan, John; McMillan, Joseph; McMurtray, Anthony; Mendiola, Anthony; Meyer, David; Michalak, Paul; Miller, Charles; Miller, Chris; Miller, Geoffrey; Miller, Marie; Miller, Mark; Miller, Michael; Miotla, Sherri; Mitchell, Matthew; Mitchell, Reggie; Mohseni, Aby; Monk, Robert; Monninger, John; Montgomery, Jack; Moore, Scott; Moore, Thomas; Moorman, James; Morris, Eddie; Morris, James; Morris, R. Michael; Morris, Scott; Morrissey, Thomas; Moulding, Patrick; Moy, Romena; Mrowca, Lynn; Muessle, Mary; Munday, Joel; Murphy, Jerome; Murphy, Martin; Musser, Randy; Narick, Marianne; Nazario, Tomy; Nease, Rebecca; Neff, Deborah; Nelson, Robert; Nichols, Russell; Nieh, Ho; Norato, Michael; Norris, Michael; Nute-Blackshear, Lora; O'Brien, Kenneth; OBryan, Phil; O'Donohue, Kathleen; Offutt, David; Ogle, Chuck; OKeefe, Neil; Oklesson, Edward; Ordaz, Vonna; Orth, Steven; O'Sullivan, Kevin; Ott, William; Ousley, Elizabeth; Owens, Janice; Paradiso, Karen; Partlow, Benjamin; Pascarelli, Robert; Peck, Michael; Pederson, Cynthia; Pelke, Patricia; Pellet, John; Pelton, David; Peralta, Juan; Perry, Jamila; Perry, Neil; Persinko, Andrew; Peters, Sean; Peterson, Gordon; Peterson, Hironori; Pham, Bo; Phillips, Charles; Piccone, Josephine; Pool, Stephen; Poole, Brooke; Powell, Amy; Powell, Dawn; Powell, Raymond; Prescott, Peter; Pretzello, Andrew; Price, Georgette; Pruett, Troy; Pstrak, David; Pulliam, Timothy;

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Quay, Theodore; Quichocho, Jessie; Rabideau, Peter; Rahimi, Meraj; Raione, Richard; Rajnic, Cecilia; Ramirez, Frances; Rasmussen, Richard; Rasouli, Housman; Raspa, Rossana; Rayland, Andrew; Raymond, William; Reckley, William; Reddick, Darani; Reece, James; Regan, Christopher; Reis, Terrence; Remsburg, Kristy; Reynolds, Steven; Reynoso, John; Rheaume, Cynthia; Ricci, John; Rich, Daniel; Rich, Thomas; Richards, Stuart; Ricketts, Paul; Riemer, Kenneth; Ring, Mark; Roach, Edward; Roach, Gregory; Roberts, Darrell; Rodgers, Felecia; Rogge, John; Rosenberg, Stacey; Ross, Thierry; Ross-Lee, MaryJane; Rothschild, Trip; Rough, Richard; Rowhani, Bahman; Royal, Judith; Rubenstone, James; Rubic, Mark; Ruiz, Robert; Ruland, William; Rule, David; Rutkowski, John; Rutledge, Steven; Rzepka, Robert; Sabisch, Andrew; Safford, Carrie; Saigado, Nancy; Salley, MarkHenry; Salter, Susan; Sanchez, Alba; Sanchez, Alfred; Sangimino, Donna-Marie; Santiago, Patricia; Santos, Cayetano; Sargent, Kimberly; Satorius, Mark; Schaaf, Robert; Schaeffer, James; Schmidt, Rebecca; Schneider, Max; Schnetzler, Bonnie; Schoenmann, Sandra; Schroeder, Daniel; Schum, Constance; Scott, Catherine; Scott, Michael; Sealing, Donna; Seqala, John; Serepca, Beth; Seymour, Deborah; Shaeffer, Scott; Shaffer, Steve; Shannon, Mel; Shannon, Michael; Sharkey, Jeffrey; Shay, Jason; Shear, Gary; Shehee, James; Sheron, Brian; Shields, James; Shoop, Undine; Shuaibi, Mohammed; Silva, Patricia; Simms, Sophonia; Skeen, David; Skokowski, Richard; Smith, Arthur; Smith, Brian; Smith, Galen; Smith, Rich; Smith, Tuwanda; Solorio, Dave; Sosa, Belkys; Sotiropoulos, Dina; Spencer, Mary; Spindler, David; Spitzberg, Blair; StAmour, Norman; Stablein, King; Stapleton, Bernard; Stetson, Kathleen; Stewart, Scott; Stewart, Sharon; Stoedter, Karla; Stone, AnnMarie; Suber, Gregory; Subosits, Stephen; Sullivan, Allen; Swain, Karol; Sydnor, Russell; Sykes, Marvin; Szyperki, Bill; Tailleart, Don; Talley, Sandra; Tappert, John; Tate, Travis; Taylor, Robert; Tenaglia, Mickey; Terao, David; Terry, Leslie; Thaggard, Mark; Thomas, Brian; Thomas, Christopher; Thorp, John; Tonacci, Mark; Tracy, Glenn; Tran, Tu; Trapp, James; Travick, Vanette; Trent, Glenn; Tschiltz, Michael; Turner, Joseph; Turtill, Richard; Uhle, Jennifer; Ulses, Anthony; Usilton, William; Valentin, Andrea; Vogel, Anton; Vias, Steven; Vietti-Cook, Annette; Virgilio, Martin; VonTill, Bill; Voytko, Victoria; Walker, Tracy; Walker, Wayne; Wall, Scott; Warnick, Greg; Wastler, Sandra; Waters, Michael; Watson, Bruce; Weaver, Doug; Webber, Robert; Weber, Michael; Weerakkody, Sunil; Welling, Blake; Werkheiser, David; Werner, Greg; Wert, Leonard; West, Garmon; West, Steven; Westreich, Barry; Whetstone, Jack; White, Duncan; White, Darrell; Whited, Ryan; Whitten, Jack; Widdup, Joseph; Widmann, Malcolm; Wiggins, Jim; Williams, Barbara; Williams, Evelyn; Williams, Kevin; Williams, Michael; Williams, Mona; Williams-Johnson, Patrice; Williamson, Edward; Wilson, Ernest; Wilson, George; Wilson, Peter; Wood, Gene; Wood, Kent; Wright, Lisa (Gibney); Wrona, David; Wunder, George; Yerokun, Jimi; Young, Cale; Young, Miltzi; Zane, Steven; Zeiler, John; Zimmerman, Jacob; Zimmerman, Roy; Zabler, Marian

Cc: Scott, Tracy; Tallarico, Alison; Thoman, Raymond; Jones, Jackie; Blair, Tina; Chin, Allison; Dean, Vivian; Evans(HR), Marilyn; Himmelberg, Jude; Jackson, Briana; Jaigobind, Savi; Silberfeld, Dafna; Watson, Madonna; Williams, Michelle; Atkinson, Jeanne; Broadwater, Lynne; Brown, Keisa; Hicks, Beverly; Hicks, Valencia; Jonsson, Dawn; Lindsay, Sandy; Marziale, Riqueza; ORourke, Christine; Reeves, Gloria; Scott, Mary; Thomas-Richards, Karen; Todd, Colleen

Date: Thursday, March 17, 2011 2:07:21 PM

Attachments: Work Schedule and Premium Pay Guidance for Japan Response 3.docx

Managers, supervisors, team leaders, and T&L Coordinators,

Attached for your information is a document that addresses, in detail, work schedules and premium pay for individuals who serve in and support the NRC Operations Center or work in Japan, in response to the current, serious nuclear power plant issues in that country. NSIR and the NRC Japanese support team leader will provide the document to all participants.

T&L Coordinators, please note that participants in your organization may contact you to request a change in their HRMS workgroups for pay periods in which they perform emergency response work.

Participants should contact me if they have any questions on work schedules or premium pay.

Larry Davidson
Office of Human Resources
Nuclear Regulatory Commission
301-492-2286; lawrence.davidson@nrc.gov

WORK SCHEDULE AND PREMIUM PAY GUIDANCE **FOR RESPONSE TO EVENTS IN JAPAN**

Please first review this document and contact Larry Davidson of the Office of Human Resources (301-492-2286 or lawrence.davidson@nrc.gov) for any needed assistance.

Work Schedules

One or more types of work schedules may be appropriate during a pay period in which you serve in and support the NRC Operations Center or work in Japan, in response to the current, serious nuclear power plant issues in that country. You are authorized to select the type of work schedule you will work during the pay period depending on:

- Your specific workdays and work clock hours in the Operations Center or in Japan, as well as any flexibility you have to choose those workdays and clock hours;
- Your entitlement to premium pay for work in the Operations Center or Japan;
- Your performance, if any, of regular duties outside of the Operations Center/Japan during the pay period; and,
- Your loss of earned credit hours if you switch from NEWFlex to another type of work schedule.

Possible work schedules include:

- Compressed work schedule – Appropriate if, during the entire pay period, your workdays and work clock hours are fixed (i.e., you do not have any flexibility to choose either) and there are fewer than ten nonovertime workdays in the pay period (at least one nonovertime workday contains more than eight nonovertime hours). Note that restrictions on nonovertime work clock hours and weekend workdays have been lifted for the pay period. An Expanded-Compressed Work Schedule may be appropriate (see the Yellow Announcement at <http://www.internal.nrc.gov/announcements/yellow/2003/2003-032.html> and Article 6.10.3 of the Collective Bargaining Agreement).
- NEWFlex - Appropriate if, during at least a portion of the pay period, you have some discretion to select your workdays and/or work clock hours (for example, if/when performing regular duties outside of the Operations Center or Japan). Note that restrictions on nonovertime work clock hours and weekend workdays have been lifted for the pay period.
- First-40 – Appropriate if it is impracticable to prescribe a regular schedule of definite hours of duty for each workday of the workweek (likely not appropriate).

Note that you must advise your T&L coordinator to change your HRMS workgroup if you change the type of schedule you work, e.g., if you normally work CWS and change to NEWFlex for the pay period in which you serve in and support the NRC Operations Center or work in Japan. Also note that if you switch from NEWFlex to another type of work schedule, you will lose and will be paid for any accumulated credit hours.

Also note that if you work fewer than 80 hours serving in and supporting the NRC Operations Center or working in Japan, your “home” supervisor will allow you discretion, to the extent possible, to decide how/when to cover any missing time.

Premium Pay

Cap on Combined Salary Plus Premium Pay –The biweekly cap on premium pay has been lifted and will be applied on an annual basis during any pay period in which you serve in and support the NRC Operations Center or work in Japan (the annual cap will benefit you if you are paid a salary below the GG-15 step 10 salary rate). Your organization has been advised to contact CFO with employee names and dates of work.

Overtime pay or regular comp time – Overtime (limited to the higher of: your regular rate; or, 150% of GG-10 step 10) is paid for your work in excess of your full-time work schedule during the pay period. You may choose to be compensated via regular compensatory time off instead (limited to a 40-hour pay period carryover) if your overtime work was not scheduled in advance of the workweek, or regardless of when it was scheduled if you are on NEWFlex.

TRCs – Use “OT” for overtime pay and “COMPE” for regular comp time.

Night premium (10%) –This premium is paid for your *nonovertime* work between 6:00 p.m. and 6:00 a.m. the following morning, and for your *overtime* work during these clock hours if the work was scheduled in advance of the week in which you performed it. Also, this premium is paid for your periods of paid leave, if any, during night clock hours if, during the pay period, you have fewer than 8 hours of total paid leave inclusive of both night and day work.

TRC – NDIFF (hours must also be recorded under another TRC such as REG or OT).

Sunday premium (25%) – This premium is paid for your *nonovertime* work performed on a shift(s), any part(s) of which falls on a Sunday (e.g., a shift from Saturday at 6:00 p.m. to Sunday at 6:00 a.m.). Sunday premium is not payable for periods of nonwork, including leave, holidays not worked, and excused absence.

TRC – SUNP (hours must also be recorded under another TRC such as REG).

Standby status - You are eligible for special overtime pay if you are restricted by official order to a designated post of duty and assigned to be in a state of readiness to perform work, versus actually performing work, with limitations on your activities so substantial that you cannot use

your time effectively for your own purposes. We do not anticipate that any employee will be in a standby status.

Miscellaneous

Employee Assistance Program (EAP)

Free, confidential counseling is available to you and your family members to address emotional issues, work problems, substance abuse, stress, crisis, marital/family concerns, financial matters, legal issues, eldercare resources, and childcare referrals. Call 1-800-869-0276 or check www.eapconsultants.com.

Travel

If you travel to/from Japan:

- Keep a log of specific travel times and work clock hours to help NRC compute your entitlement to compensation.
- Consider enrolling in the Smart Traveler Enrollment Program or STEP) to make it easier for the Embassy/Consulates to contact you in case of an emergency. You may enroll at <https://travelregistration.state.gov>, or if you have no internet access, directly at the U.S. Embassy or U.S. Consulates.
- If you are paid a salary below the GG-15 step 10 salary rate, you are entitled to overtime pay (limited to higher of: your regular rate; or, 150% of GG-10 step 10) for travel to/from Japan, and if the travel is during night hours (6:00 p.m. to 6:00 a.m.) and scheduled in advance of the workweek, you are also entitled to night premium pay. You may substitute regular compensatory time off (limited to a 40-hour pay period carryover) for overtime pay if your travel was not scheduled in advance of the workweek, or regardless of when it was scheduled if you are on NEWFlex.

TRCs – Use “OT” for overtime pay, “COMPE” for regular comp time, and “NDIFF” for night premium pay.

From: Borchardt, Bill
To: Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Date: Thursday, March 17, 2011 9:44:14 AM

Senate EPW staff has requested a briefing Fri @9:30 (location TBD). I believe that Pete Lyons will be representing DOE. I am planning to represent NRC. I invite any of the 4 addressees of this email (the 4 new "Communicators") to come along to get a sense of what the hill is interested in, etc. It is totally your call. I plan to be in the ops center at 7am to get a last minute update and then take metro (7:45) downtown.

Please let me know whether you plan to attend or not.

Bill

From: [Haney, Catherine](#)
To: [Weber, Michael](#)
Cc: [Dorman, Dan](#); [McCree, Victor](#)
Subject: FW: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan
Date: Thursday, March 17, 2011 1:49:00 PM

Mike,

FYI. I'm trying to be proactive as I think it is only a matter of time before these questions get asked about fuel facilities.

We will coordinate with R2 and share with the Ops Center once they are developed.

Cathy

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 ore 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.

2/88

Thanks, Mike

From: [Haney, Catherine](#)
To: [Tschiltz, Michael](#)
Subject: RE: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan
Date: Thursday, March 17, 2011 1:49:00 PM

Thanks.

Please keep R2 aware of what we are doing.

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 ore 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

2/89

From: [Haney, Catherine](#)
To: [Tschiltz, Michael](#)
Subject: RE: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan
Date: Thursday, March 17, 2011 1:50:00 PM

Oops. Missed that.

From: Tschiltz, Michael
Sent: Thursday, March 17, 2011 1:50 PM
To: Haney, Catherine
Subject: RE: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan

I cced them...

From: Haney, Catherine
Sent: Thursday, March 17, 2011 1:50 PM
To: Tschiltz, Michael
Subject: RE: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan

Thanks.

Please keep R2 aware of what we are doing.

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 ore 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

From: Droggitis, Spiros
To: Haney, Catherine; Schmidt, Rebecca; Weber, Michael; Borchardt, Bill; Virgilio, Martin
Cc: Dorman, Dan
Subject: RE: Phone Congressional Liaison Team Briefing
Date: Thursday, March 17, 2011 4:21:34 PM

Thanks, Cathy. Just keep me posted. Bon voyage, Spiros

From: Haney, Catherine
Sent: Thursday, March 17, 2011 4:17 PM
To: Droggitis, Spiros; Schmidt, Rebecca; Weber, Michael; Borchardt, Bill; Virgilio, Martin
Cc: Dorman, Dan
Subject: RE: Phone Congressional Liaison Team Briefing

Spiros

I'm headed to France on Saturday and will not return until the 25th.

I know the original intent was to have OD brief but I'd like to offer up Dan in my place. He's been involved in the Ops Center all week so he is well versed on the subject. I'm not sure who needs to approve Dan as a communicator. I'm going to assume it is Mike Weber or Bill Borchardt. Once we get the ok on Dan, we can place his name on the list.

Cathy

From: Droggitis, Spiros
Sent: Thursday, March 17, 2011 3:51 PM
To: Schmidt, Rebecca; Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Powell, Amy; Virgilio, Martin; Riley (OCA), Timothy
Subject: RE: Phone Congressional Liaison Team Briefing

To follow-up on Becky's request, here is the draft schedule for the daily Congressional staff calls which will be at 3:00 pm every day.

March 18 – Mike Johnson
March 19 –
March 20 –
March 21 –
March 22 – Mike Johnson
March 23 –
March 24 –
March 25 –

I would appreciate if Cathy, Eric and Brian could give me slots that they would be able to cover for the calls so I can finalize the schedule. We'll provide the calling information later. Thanks for your help, Spiros

From: Schmidt, Rebecca

2/90

Sent: Thursday, March 17, 2011 3:31 PM
To: Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Droggitis, Spiros; Powell, Amy; Virgilio, Martin
Subject: Phone Congressional Liaison Team Briefing

All—We had our first call to Congressional staffers at 1:30 today. The call lasted about 1 hour. We invited over 500 staffers to listen in and ask questions. Mike and his team did a great job. It was good to spend the extra time today providing background material to them, but I'm thinking that we will probably shorten our briefing and instead answer more questions in the future. Spiros will be contacting you to set the schedule for the next several days. We will be doing the call at 3:00 daily. This effort is different than the 2 briefings tomorrow on the Hill. Thanks for all your help! Becky

From: Johnson, Michael
Sent: Thursday, March 17, 2011 2:57 PM
To: Haney, Catherine; Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: Re:

I can't support before late afternoon. I am planning on supporting a call at 300 tomorrow. From my blackberry.

From: Haney, Catherine
To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Sent: Thu Mar 17 13:47:00 2011
Subject: RE:

Seems to me that Brian might be the best candidate since he is already downtown. I tried calling him to discuss who would go. Shirley told me that Brian was at DOE (meeting doesn't end until 5 pm) and that his schedule on Friday was open. She tentatively put the 11:45 briefing on his schedule.

I'm happy to be a back up. If Brian can't do it, I'd like to go down and listen in on the 9:30 briefing.

Unfortunately, we might not have a firm answer until later this evening unless Mike J wants to volunteer in Brian's place.

As an aside, I'm scheduled to leave for France on Saturday afternoon. I spoke with Mike W last night about whether I should cancel. The view was I should continue with the trip. Of course, I can change plans up until I get on the plane. You might want to consider using Dan as a communicator next week. I will leave my "go to book" for him.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 1:00 PM
To: Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

Unfortunately this would conflict with the NRC all hands briefing. Can 1 of the 4

"communicators" handle the 11:45?

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 12:48 PM
To: Sheron, Brian; Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

The House has now asked for the same briefing at 11:45. Bill are you available for that one too?

From: Sheron, Brian
Sent: Thursday, March 17, 2011 10:05 AM
To: Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject: RE:

I should be able to attend. I'll meet you in the ops center around 7am.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 9:44 AM
To: Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject:

Senate EPW staff has requested a briefing Fri @9:30 (location TBD). I believe that Pete Lyons will be representing DOE. I am planning to represent NRC. I invite any of the 4 addressees of this email (the 4 new "Communicators") to come along to get a sense of what the hill is interested in, etc. It is totally your call. I plan to be in the ops center at 7am to get a last minute update and then take metro (7:45) downtown.

Please let me know whether you plan to attend or not.

Bill

From: Leeds, Eric
To: Schmidt, Rebecca; Sheron, Brian; Borchardt, Bill; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Schwarz, Sherry
Subject: RE:
Date: Thursday, March 17, 2011 12:57:54 PM

Bill –

I'm going to decline because of all the actions NRR currently has ongoing. I know you'll be ably assisted, although you don't need it, by Brian and any others that choose to go.

Thanks!

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

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 12:48 PM
To: Sheron, Brian; Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
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Bill

2/91

From: [Leeds, Eric](#)
To: [Haney, Catherine](#)
Subject: RE:
Date: Thursday, March 17, 2011 2:02:06 PM

Good thoughts. Enjoy Paris. I'm sure they'll be buzzing about the event.

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

From: Haney, Catherine
Sent: Thursday, March 17, 2011 1:47 PM
To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: RE:

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2/92

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To: Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
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Please let me know whether you plan to attend or not.

Bill

From: Haney, Catherine
To: Sheron, Brian
Subject: RE:
Date: Thursday, March 17, 2011 5:47:00 PM

Thanks for saving me the trip downtown

From: Sheron, Brian
Sent: Thursday, March 17, 2011 5:47 PM
To: Haney, Catherine; Borchardt, Bill; Schmidt, Rebecca; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: Re:

I will handle it since I'll already be down there.

From: Haney, Catherine
To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
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Subject: RE:

2/93

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Please let me know whether you plan to attend or not.

Bill

From: [Haney, Catherine](#)
To: [Weber, Michael](#)
Subject: Fw: RWMC-44
Date: Thursday, March 17, 2011 5:46:36 AM

Followup from yesterdays discussion - this is more what I expected.

I will be curious if this changes any NUMO plans for next week.

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

From: mishiro.masaaki@jaea.go.jp <mishiro.masaaki@jaea.go.jp>
To: John.STEIN@oecd.org <John.STEIN@oecd.org>
Cc: john.stein@oecd.org <john.stein@oecd.org>; Haney, Catherine; mcrl@csn.es <mcrl@csn.es>; gerald.ouzounian@andra.fr <gerald.ouzounian@andra.fr>; marie-claude.dupuis@andra.fr <marie-claude.dupuis@andra.fr>; lorella.pecorale@oecd.org <lorella.pecorale@oecd.org>; jp.minon@nirond.be <jp.minon@nirond.be>; Smith, Shawn; kshaver@nwmo.ca <kshaver@nwmo.ca>; uichiro.yoshimura@oecd.org <uichiro.yoshimura@oecd.org>; claudio.pescatore@oecd.org <claudio.pescatore@oecd.org>; hans.riotte@oecd.org <hans.riotte@oecd.org>
Sent: Thu Mar 17 05:20:11 2011
Subject: RWMC-44

Dear all,

Developments of Fukushima Nuclear Plant situation and recovery of JAEA damaged activities these days compelled me to stay in Japan next week. I will miss RWMC meetings next week.

Thank you for your kind words to me and Japan. I wish you a good meeting and fruitful outcome.

Warm regards,
Mishiro

2/94

From: [Haney, Catherine](#)
To: [Tschiltz, Michael](#)
Subject: FW: Japan event Q&As - additional info
Date: Thursday, March 17, 2011 2:53:00 PM

FYI

From: Leeds, Eric
Sent: Thursday, March 17, 2011 2:38 PM
To: Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art; Boger, Bruce; Grobe, Jack; Wiggins, Jim; Evans, Michele; Sheron, Brian; Uhle, Jennifer; Johnson, Michael; Holahan, Gary; Haney, Catherine; Dorman, Dan; Miller, Charles; Moore, Scott; Doane, Margaret; Mamish, Nader; Boyce, Thomas (OIS); Schmidt, Rebecca; Powell, Amy; Brenner, Eliot; Hayden, Elizabeth; McDermott, Brian
Cc: Virgilio, Martin; Weber, Michael; Ash, Darren; Nguyen, Quynh; Meighan, Sean; Kammerer, Annie; Landau, Mindy; Wittick, Brian; Morris, Scott; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Galloway, Melanie; Giitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; McGinty, Tim; Nelson, Robert; Quay, Theodore; Ruland, William; Skeen, David
Subject: Japan event Q&As - additional info

I've assigned Bob Nelson, Deputy Director, Division of Operating Reactor Licensing, as the NRR Coordinator for External Communications related to NRR's response to the recent events in Japan. 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. Assisting Nelson will be Sean Meighan and Quynh Nguyen from the NRR front office, Eric Thomas from DIRS and a communications "tiger team" being formulated in DORL headed by Mike Markley. Harold Chernoff will also provide assistance as needed. Please forward all of your requests for support in this area to Nelson. (Extension 7298 and cell: 703-244-7493).

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

2/95

From: [Haney, Catherine](#)
To: [Dorman, Dan](#)
Subject: FW: LIST OF PUBLIC MEETINGS THIS WEEK AND NEXT
Date: Tuesday, March 15, 2011 3:05:00 PM

Do we have speaking points to provide to staff if asked about Japan. I know the Ops Center has been working on them but I haven't seen anything.

From: Doolittle, Elizabeth
Sent: Tuesday, March 15, 2011 12:52 PM
To: Haney, Catherine; Dorman, Dan
Cc: Kokajko, Lawrence; Kinneman, John; Ordaz, Vonna
Subject: LIST OF PUBLIC MEETINGS THIS WEEK AND NEXT

1. March 14, 2011, with Nuclear Energy Institute (NEI) to discuss the NRC pilot issue for NEI's Dry Storage Task Force. The pilot issue for the utilizing NEI's Regulatory Issue Resolution Protocol is stress corrosion cracking of storage casks in a marine environment - SFST
2. March 16, 2011, with NAC International to discuss the new application submitted for the Model No. MAGNATRAN transport package - SFST
3. March 17, 2011, with Northern States Power Management (NSPM) and Xcel Energy to discuss the plans of Northern States Power Company, a Minnesota corporation, d/b/a Xcel Energy for submittal of an application to renew the Prairie Island ISFSI site-specific license. SFST
4. March 24, 2011, with Holtec and the NRC staff to discuss the proposed HI-STORM FW dry cask storage system license amendment request No. 1-SFST
5. March 28, 2011 with NEI to obtain external stakeholder feedback regarding regulatory foundation enhancements (inspection, Certificates of Compliance and technical specifications, and NEI 72.48 Guidance Document) SFST
6. March 30, 2011, with Transnuclear, Inc. to discuss TN's proposed new application for the Model No. TN-LC transportation package SFST
7. March 31, 2011, with AREVA to discuss the content and test plan for the Model No. LANL-B transport package - SFST.
8. March 17, 2011, NRC, NEI, Fuel Cycle Licensees and Certificate Holders, Meeting on Fuel Cycle Oversight Enhancements – FCSS.
9. Week of March 21, Bret Leslie moderating - HLWRS

From: [Rodgers, Mary](#)
To: [Pulliam, Timothy](#); [Dorman, Dan](#); [Haney, Catherine](#); [Kinneman, John](#); [Kokajko, Lawrence](#); [Ordaz, Vonna](#); [Bailey, Marissa](#); [Davis, Jack](#); [Mohseni, Aby](#); [Tschiltz, Michael](#); [Weaver, Doug](#); [Doolittle, Elizabeth](#); [Ford, William](#); [Smith, James](#); [Smith, Shawn](#); [White, Bernard](#)
Subject: FW: NRC Press Release #8 (revised) through 10 - Japan Event Earthquake/Tsunami
Date: Thursday, March 17, 2011 7:40:25 AM
Attachments: [Revised NRC Sends Additional Experts To Assist Japan - Press Release 8.pdf](#)
[NRC Analysis Continues To Support Japan's Protective Actions - Press Release 9.pdf](#)
[NRC Provides Protective Action Recommendations Based On U.S. Guidelines Press Release 10.pdf](#)

From: OST03 HOC

Sent: Wednesday, March 16, 2011 6:18 PM

To: DOI; DTRA; chardin; rfraass@crccd.org; james.d.lloyd@nasa.gov; PN_Distribution; FDA; State Dept; White House Sit Room; Bernie Beaudin; Canadian Nuclear Safety Commission (CNSC); eoc2@cnscccsn.gc.ca; DOEHQEOC@OEM.DOE.GOV; fldr-nrc@comdt.uscg.mil; EOC.EPAHQ@EPAMAIL.EPA.GOV; Lawrence Koleff; SIOC; FEMA-operations-center@dhs.gov; Health Canada Operations Center; IAEA Emergency Response Unit; USDA; Screnci, Diane; Sheehan, Neil; Dricks, Victor; Clifford, James; Gamberoni, Marsha; Heater, Keith; Holian, Brian; Kay Gallagher; Kinneman, John; Lew, David; Nick, Joseph; ODaniell, Cynthia; Powell, Raymond; R1 IRC; Roberts, Darrell; Thompson, Margaret; Davenport, Patricia; McCallie, Karen; Miles, Patricia; Quinones-Navarro, Joylynn; R2 IRC; Rudisail, Steven; R3 IRC; Smith, Desiree; Alferink, Beth; Andrews, Tom; Howell, Linda; R4 IRC

Subject: NRC Press Release #8 (revised) through 10 - Japan Event Earthquake/Tsunami

*****Event Information is Attached*****

The NRC is responding to an event.

Please contact the NRC Executive Support Team if necessary at 301-816-5100 or reply to this e-mail.

2/96

From: [Ordaz, Vonna](#)
To: [Dudes, Laura](#); [Ruland, William](#); [McIntyre, David](#)
Cc: [Dorman, Dan](#); [Haney, Catherine](#); [Einzigler, Robert](#); [Rahimi, Meraj](#)
Subject: Proposal to handle dried Spent fuel pool.docx
Date: Thursday, March 17, 2011 12:39:25 PM
Attachments: [Proposal to handle dried Spent fuel pool.docx](#)

Laura,

I understand that you are on duty as the RST Director today. From our shift last night, Bill Ruland and the RST staff were discussing various approaches to address the potentially dry SFP. One of our Senior Materials Experts, Bob Einzigler has prepared the attached proposal to offer support on how to handle a dry SFP. He is available, if needed, and can be reached at 301-492-3283.

Thanks,
Vonna

2/97

Proposal to handle dried spent fuel pool

RE Einziger, Ph.D.
SFST/MNSS/NRC

Credential: I have over 30 yrs experience at National Laboratories studying the behavior of Spent Fuel rods in an Oxidizing Atmosphere.

The spent fuel consists of UO₂ fuel inside a Zircaloy-2 cladding covered with a Zirconium oxide layer and a layer of CRUD. If the pool goes dry, the rods will heat up until the rate of heat production is balanced by the rate of heat removal by conduction, convection, and radiation. As the rod is heating up the gas inside the rod will be stressing the cladding, that has a lower yield strength and thus the cladding will expand. The expansion will cause the CRUD to flake off and break up to particulate in the 1-10 micron range as it hits the pool floor. This CRUD, with a main radioactive component as Co-60 may become airborne

Somewhere between 600 and 1000C the Zircaloy cladding that has a high concentration of zirconium hydrides on the outer surface may catch on fire. Zirconium hydride is pyrophoric but the ignition temperature is not an intrinsic properties but is dependent on many features including the surface to volume ratio of the cladding.. Concurrently the pressure in the rod will continue to rise until ~750C when the rod will burst, ejecting fission gases and volatiles in the gap including Cs and I compounds. Some fuel particulate will also be ejected.

As these temperatures the exposed fuel will rapidly oxidize to U₃O₈ with a ~32% volume expansion. This expansion will split the cladding from end to end in a relatively short time. The fuel, now in grain size articulate (~10-15 micron) will stay in the cladding as a compact until it experiences a mild physical force at which time it will fall to the bottom of the pool.

Of primary important is to prevent the oxidation of the UO₂ fuel that contains the preponderance of the radionuclides. Unless you can cover the fuel completely with water the fuel will oxide. When water is sprayed on the fuel, steam is formed which further oxidizes the fuel. A better choice would be to put liquid Argon in the pool if it is available. In not then use liquid N₂. The benefits of these gases are that they have a large, (~1000 times) volume expansion when they vaporize thus a small volume has to be put in the pool then the volume of water and more importantly, both will displace the oxygen and prevent the further oxidation of the fuel. (note that this is more effective for the Argon than the N₂). Once the oxygen is displaced, both the fire, if it occurs, and fuel oxidation will stop. At this point it would be best to fill the pool with sand and glass formers and let the fuel melt into a glass. Since the assemblies are ~ 50% dense, and the pool is about 1/2 to 2/3 full (at least it was when I was there in November). The glass layer would be about 3-5 feet high. The molten glass could then be quenched to solidify it. One has to be aware though, if the fuel is allowed to melt into a glass, most of the fission gases, and volatiles trapped in the fuel pellets would escape.

Any success of this plan would be dependent on the availability of liquid gases in Japan, and ability to deliver them. That is out of my range of expertise.

Just a suggestion.

From: [HRMSBulletin Resource](#)
To: [HRMSBulletin Resource](#)
Cc: [HRMSBulletin Resource](#)
Subject: Clarification for use of the Tac ZG0061
Date: Thursday, March 17, 2011 9:27:07 AM

Clarification for use of the TAC (ZG0061) that was established for the events in JAPAN

This TAC (ZG0061) was established to track activity related to staff that are supporting the recent events in Japan. Managers that are performing managerial functions relating to the events in Japan should continue to use the TAC (ZM0000). In the situation where a manager is required to perform duties which would be considered different than managerial responsibilities should record their time under the new TAC ZG0061. Support staff that are performing Japan events should use TAC's that relate to their normal responsibilities. In the situation where administrative support staff is required to perform duties that would be considered different than routine administrative support responsibilities should record their time under the new TAC ZG0061.

If you have any additional questions please e-mail Jackie Jones Jackie.Jones@NRC.GOV or Mary Matheson at Mary.Matheson@NRC.GOV.

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From: [Tschiltz, Michael](#)
To: [Nelson, Robert](#)
Cc: [Haney, Catherine](#); [Kinneman, John](#); [Gody, Tony](#); [Cobey, Eugene](#); [Bailey, Marissa](#)
Subject: FW: Japan event Q&As - additional info
Date: Thursday, March 17, 2011 2:57:14 PM

Bob.. we are developing Qs and As for fuel cycle facilities and would like to get a copy of what your group is doing to make sure we are asking and answering similar questions.

Can you send me a copy?

Thanks, Mike

From: Leeds, Eric
Sent: Thursday, March 17, 2011 2:38 PM
To: Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art; Boger, Bruce; Grobe, Jack; Wiggins, Jim; Evans, Michele; Sheron, Brian; Uhle, Jennifer; Johnson, Michael; Holahan, Gary; Haney, Catherine; Dorman, Dan; Miller, Charles; Moore, Scott; Doane, Margaret; Mamish, Nader; Boyce, Thomas (OIS); Schmidt, Rebecca; Powell, Amy; Brenner, Eliot; Hayden, Elizabeth; McDermott, Brian
Cc: Virgilio, Martin; Weber, Michael; Ash, Darren; Nguyen, Quynh; Meighan, Sean; Kammerer, Annie; Landau, Mindy; Wittick, Brian; Morris, Scott; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Galloway, Melanie; Giitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; McGinty, Tim; Nelson, Robert; Quay, Theodore; Ruland, William; Skeen, David
Subject: Japan event Q&As - additional info

I've assigned Bob Nelson, Deputy Director, Division of Operating Reactor Licensing, as the NRR Coordinator for External Communications related to NRR's response to the recent events in Japan. 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. Assisting Nelson will be Sean Meighan and Quynh Nguyen from the NRR front office, Eric Thomas from DIRS and a communications "tiger team" being formulated in DORL headed by Mike Markley. Harold Chernoff will also provide assistance as needed. Please forward all of your requests for support in this area to Nelson. (Extension 7298 and cell: 703-244-7493).

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

2/99

From: Batkin, Joshua
To: Schmidt, Rebecca; Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Droggitis, Spiros; Powell, Amy; Virgilio, Martin
Subject: Re: Phone Congressional Liaison Team Briefing
Date: Thursday, March 17, 2011 3:32:59 PM

Awesome. Thank you everybody.

Joshua C. Batkin
Chief of Staff
Chairman Gregory B. Jaczko
(301) 415-1820

From: Schmidt, Rebecca
To: Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Droggitis, Spiros; Powell, Amy; Virgilio, Martin
Sent: Thu Mar 17 15:31:24 2011
Subject: Phone Congressional Liaison Team Briefing

All—We had our first call to Congressional staffers at 1:30 today. The call lasted about 1 hour. We invited over 500 staffers to listen in and ask questions. Mike and his team did a great job. It was good to spend the extra time today providing background material to them, but I'm thinking that we will probably shorten our briefing and instead answer more questions in the future. Spiros will be contacting you to set the schedule for the next several days. We will be doing the call at 3:00 daily. This effort is different than the 2 briefings tomorrow on the Hill. Thanks for all your help! Becky

From: Johnson, Michael
Sent: Thursday, March 17, 2011 2:57 PM
To: Haney, Catherine; Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: Re:

I can't support before late afternoon. I am planning on supporting a call at 300 tomorrow.
From my blackberry.

From: Haney, Catherine
To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Sent: Thu Mar 17 13:47:00 2011
Subject: RE:

Seems to me that Brian might be the best candidate since he is already downtown. I tried calling him to discuss who would go. Shirley told me that Brian was at DOE (meeting doesn't end until 5 pm) and that his schedule on Friday was open. She tentatively put the 11:45 briefing on his schedule.

I'm happy to be a back up. If Brian can't do it, I'd like to go down and listen in on the 9:30 briefing.

2/100

Unfortunately, we might not have a firm answer until later this evening unless Mike J wants to volunteer in Brian's place.

As an aside, I'm scheduled to leave for France on Saturday afternoon. I spoke with Mike W last night about whether I should cancel. The view was I should continue with the trip. Of course, I can change plans up until I get on the plane. You might want to consider using Dan as a communicator next week. I will leave my "go to book" for him.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 1:00 PM
To: Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

Unfortunately this would conflict with the NRC all hands briefing. Can 1 of the 4 "communicators" handle the 11:45?

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 12:48 PM
To: Sheron, Brian; Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

The House has now asked for the same briefing at 11:45. Bill are you available for that one too?

From: Sheron, Brian
Sent: Thursday, March 17, 2011 10:05 AM
To: Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject: RE:

I should be able to attend. I'll meet you in the ops center around 7am.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 9:44 AM
To: Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject:

Senate EPW staff has requested a briefing Fri @9:30 (location TBD). I believe that Pete Lyons will be representing DOE. I am planning to represent NRC. I invite any of the 4 addressees of this email (the 4 new "Communicators") to come along to get a sense of what the hill is interested in, etc. It is totally your call. I plan to be in the ops center at 7am to get a last minute update and then take metro (7:45) downtown.

Please let me know whether you plan to attend or not.

Bill

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 8:42 PM
To: Sheron, Brian
Subject: Response - SUMMARY OF TODAY'S MEETING WITH SECRETARY CHU ON WAYS TO ASSIST JAPAN

Good for sharing. Thanks

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

From: Sheron, Brian
To: Weber, Michael
Sent: Thu Mar 17 20:33:38 2011
Subject: RE: FYI - SUMMARY OF TODAY'S MEETING WITH SECRETARY CHU ON WAYS TO ASSIST JAPAN

Good summary. I am also sending to Pete Lyons (for Secretary Chu's information and use) the pie chart we used at the NAS briefing a few weeks ago that shows from where the average person receives their radiation dose (e.g., natural background, medical scans). One would think DOE would have it, but when I mentioned it I was met with blank stares.

From: Weber, Michael
Sent: Thursday, March 17, 2011 7:30 PM
To: Jaczko, Gregory
Cc: Sheron, Brian; Uhle, Jennifer; RST01 Hoc; OST02 HOC; LIA05 Hoc; Coggins, Angela; Batkin, Joshua; Virgilio, Martin; Borchardt, Bill
Subject: FYI - SUMMARY OF TODAY'S MEETING WITH SECRETARY CHU ON WAYS TO ASSIST JAPAN

Good evening, Chairman. Secretary Chu hosted a "brain storming" meeting downtown this afternoon on what steps might be taken to assist Japan authorities in controlling the nuclear power plants at Fukushima-Daiichi and preventing additional releases. Brian Sheron represented the NRC at the meeting and called me on his return to the office. You may recall that Pete Lyons invited the NRC to participate in the meeting. The meeting lasted a full four hours.

In addition to the Secretary and Dr. Lyons, other participants included Administrator D'Agostino, Director Holdren, Admiral Grossenbacher, John Kelly (DOE-NE), Bob Budnitz, Per Peterson (Blue Ribbon Commission), and others. The group discussed a number of different topics:

- Problem solving techniques that might be explored like PIRT and Failure Modes and Effects Analysis
- Percent of the reactor cores that might be released if the accident progresses, current configuration of the cores, and driving mechanisms for release
- Expected accumulation of salt from the evaporating seawater in the reactors and the coolability of a salt-encrusted core
- Potential effect of the salt on Cs releases due to the formation of CsCl
- Prophylactic doses of KI and side effects
- NRC seismic design requirements for NPPs in the United States

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Possible strategies for getting water in the Spent Fuel Pools, suppressing Zr fuel fires, or for removing the spent fuel from the pools

Average annual doses to members of the U.S. population and sources

The Secretary stated that he will be interviewed on 5 talk shows this coming Sunday morning, so he was interested in getting background information about several topics. He asked for a one page summary of our seismic design requirements. Given the tight time constraints, Brian was not sure that we could turn around a summary that fast, so he provided the Secretary with a current copy of draft Q&As on seismic issues that has been prepared by RES, NRR, and other NRC offices. I will forward to you a copy of these Q&As - they are in draft form and extensive (10s of pages). Dr. Lyons will document today's meeting. Brian got the impression from the Secretary that he may have a similar meeting at some point in the future. Brian did not hear any ideas that sounded feasible that we were not already aware of. Some of the participants heard ideas that they plan to look into, but it did not sound like there were any specific ideas to pass to our team in Japan at this time.

Mike

Michael Weber

Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs U.S. Nuclear Regulatory Commission

301-415-1705

Mail Stop 016E15

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 7:45 PM
To: Jaczko, Gregory
Subject: RESPONSE - SUMMARY OF TODAY'S MEETING WITH SECRETARY CHU ON WAYS TO ASSIST JAPAN

No, sir. Jack Grobe is on as ET Director now.

From: Jaczko, Gregory
Sent: Thursday, March 17, 2011 7:42 PM
To: Weber, Michael
Subject: Re: FYI - SUMMARY OF TODAY'S MEETING WITH SECRETARY CHU ON WAYS TO ASSIST JAPAN

Thanks mike. You on for the ET now?

From: Weber, Michael
To: Jaczko, Gregory
Cc: Sheron, Brian; Uhle, Jennifer; RST01 Hoc; OST02 HOC; LIA05 Hoc; Coggins, Angela; Batkin, Joshua; Virgilio, Martin; Borchardt, Bill
Sent: Thu Mar 17 19:30:50 2011
Subject: FYI - SUMMARY OF TODAY'S MEETING WITH SECRETARY CHU ON WAYS TO ASSIST JAPAN

Good evening, Chairman. Secretary Chu hosted a "brain storming" meeting downtown this afternoon on what steps might be taken to assist Japan authorities in controlling the nuclear power plants at Fukushima-Daiichi and preventing additional releases. Brian Sheron represented the NRC at the meeting and called me on his return to the office. You may recall that Pete Lyons invited the NRC to participate in the meeting. The meeting lasted a full four hours.

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- Potential effect of the salt on Cs releases due to the formation of CsCl
- Prophylactic doses of KI and side effects
- NRC seismic design requirements for NPPs in the United States
- Possible strategies for getting water in the Spent Fuel Pools, suppressing Zr fuel fires, or for removing the spent fuel from the pools
- Average annual doses to members of the U.S. population and sources

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2/102

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Mike

Michael Weber
Deputy Executive Director for Materials, Waste, Research,
State, Tribal, and Compliance Programs
U.S. Nuclear Regulatory Commission

301-415-1705
Mail Stop O16E15

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 8:41 PM
To: LIA05 Hoc; OST01 HOC
Subject: Fyi - Seismic regulations summarization

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

From: Sheron, Brian
To: Kammerer, Annie; Case, Michael; Richards, Stuart; Ake, Jon; Murphy, Andrew
Cc: Weber, Michael
Sent: Thu Mar 17 20:28:21 2011
Subject: RE: Seismic regulations summarization

OK. Can you e-mail Pete Lyons early tomorrow and let him know that the one-pager will be coming but it will be around COB.

From: Kammerer, Annie
Sent: Thursday, March 17, 2011 7:52 PM
To: Sheron, Brian; Case, Michael; Richards, Stuart; Ake, Jon; Murphy, Andrew
Cc: Weber, Michael
Subject: RE: Seismic regulations summarization

I have sent the Q&As.

Unfortunately, there's not much on our regs in the Q&As yet. However, Jon and I had already discussed the need for a fact sheet on seismic regulation in the "additional information" section of the document because we are starting to get some questions.

Jon will lead the work to put together the information for Steve tonight. As you note, it's important to run it by NRR (and NRO). So, we'll send it to Meena, Kamal, Nilesh and Goutam tomorrow so that they can all review. If anyone else comes to mind, please let us know. I hope that the deadline of "tomorrow" is COB, instead of first thing.

Also, just FYI, we have been asked by NRR/DORL and OPA to pull a subset of Q&As together for a public release. This is to support several public meetings in the regions next week. We have to get it to OPA by COB tomorrow so that they can bless it. Those poor guys in the regions are getting pummeled.

Cheers,
Annie

From: Sheron, Brian
Sent: Thursday, March 17, 2011 6:51 PM
To: Case, Michael; Richards, Stuart; Kammerer, Annie; Ake, Jon; Murphy, Andrew
Cc: Weber, Michael
Subject: Seismic

1.) Secretary Chu at DOE is scheduled to be interviewed on 5 talk shows Sunday morning. He has requested a 1 page summary of our seismic regulatory requirements. I gave him the 3/16 version of your seismic Q&A package and suggested his staff could screen it and perhaps pull out pertinent info on our regs, however, I haven't read it yet and don't know to what extent it does or doesn't discuss our regulatory requirements. Can you quickly pull together a 1-2

page summary of our seismic regulatory requirements, run them by NRR if possible, and then e-mail them to Pete Lyons at DOE (peter.lyons@nuclear.energy.gov<<mailto:peter.lyons@nuclear.energy.gov>>). He needs them tomorrow. Please CC me. Remember, he is just looking for a high level summary sufficient to answer likely questions he might get during the interviews.

2.) Can you please e-mail the latest version of your seismic Q&As to Mike Weber.

Thanks.

Wittick, Brian

From: Wittick, Brian
Sent: Thursday, April 14, 2011 9:12 PM
To: 'bannai-toshihiro@meti.go.jp'
Cc: 'nei-hisanori@meti.go.jp'; 'oshima-toshiyuki@meti.go.jp'
Subject: FW: Communication Plan draft document
Attachments: Communication Plan for Fukushima Events.docx

Dear Bannai-san

Attached please find an updated draft of our proposed communication plan. This update incorporates your insights from yesterday and an input request from our Department of Energy. Our leadership also suggested, given concerns about the number of criteria, that maybe we could simplify several of the criteria to one that is more general and outcome driven such as "events that cause a site evacuation" or similar. I hope that we are able to dialogue on this more today so we can incorporate your thoughts.

Best regards,
Brian Wittick
U.S. Nuclear Regulatory Commission

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DRAFT

Government of Japan and U.S. Embassy/U.S. Nuclear Regulatory Commission (NRC) Communication Plan

In Case of Follow-on Event at Fukushima Daiichi

Points of Contact:

U.S Embassy (operator) – 03 3224 5000

U.S. NRC – 03 3224 5066 or +1 202 285 6128

Japan (MOFA....NISA?)

Event Criteria (based on site hazards that impact, or potentially impact, plant stability):

- Earth quakes of magnitude >7.0
- Events that result in loss of nuclear plant or spent fuel pool cooling
- Fires that last > 15 minutes at the site primary or secondary buildings, or affect temporary cooling systems
- On site explosions that affect the primary or secondary buildings, or temporary cooling systems
- Indication of uncontrolled rising temperatures in the reactor core or spent fuel pools
- Identification of new or increased releases of radioactivity from the site
- Site events that result in evacuation of the site for greater than one hour
- Other events that would result in the need for reevaluation of accident mitigation measures or personnel protective actions

Procedure:

It is requested that within one hour of identification of the above criteria to the government of Japan, reports should be made to the U.S. Embassy and NRC at the numbers provided above. When contacting the U.S. Embassy, call the number above and ask for the Duty Officer to make the report.

Reports should include:

- Time of the event
- Impacts to site equipment or personnel
- Plans for recovery

The U.S. Embassy Duty Officer will notify other government agencies as appropriate.

Additionally, the U.S. Department of Energy (DOE) is working with the Government of Japan to install a temporary radiation monitoring system near the Fukushima site that has automated call out capability when certain radiation thresholds are exceeded. DOE will set up the system to provide call outs to the following GOJ and U.S. entities:

- U.S. Embassy
- U.S. NRC
- GOJ MOFA
- GOJ JNES
- ????

Clayton, Kathleen

From: Weber, Michael
Sent: Thursday, March 17, 2011 7:34 PM
To: Chokshi, Nilesch
Cc: Leeds, Eric; LIA03 Hoc; OST02 HOC
Subject: RESPONSE - 転送 : Chokshiさんへの返信案

Thanks, Nilesch. We were honored to host Dr. Ebisawa in the Operations Center and appreciated the information that he shared with us following the tragic earthquake and tsunami on March 11.

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

From: Chokshi, Nilesch
Sent: Thursday, March 17, 2011 7:21 PM
To: Leeds, Eric; Weber, Michael
Subject: FW: 転送 : Chokshiさんへの返信案
Importance: High

Mike and Eric,

I am forwarding a message I received from Dr. Ebisawa of JNES whom you met last Friday. He wants to convey his thanks for use of facility and opportunity to talk to you.

Nilesch

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

From: ebisawa-katsumi@jnes.go.jp [<mailto:ebisawa-katsumi@jnes.go.jp>]
Sent: Thursday, March 17, 2011 2:40 AM
To: Chokshi, Nilesch; abe-hiroshi@jnes.go.jp
Subject: 転送 : Chokshiさんへの返信案
Importance: High

Dear Nilesch

Would you please receive my sincere gratitude for your kind hospitality to Mar. 11 meeting and special care guiding me to the NRC Headquarter Operations Center and introducing to Mr. Eric Leeds and Mr. Michael Weber.

It was precious experience for me to visit the center and to get newest information of the incident from Japan, using stable and clear phone of the center. I hope information I explained at that meeting would have some meaning to NRC.

Would you please convey my deep thanks to Mr. Eric Leeds and Mr. Michael Weber?

And here I thank you again for your encouragement to us addressing the disaster.

2/105

Our current issue is spent fuel pit cooling of Fukushima No 1 site unit 3 and 4. Today, helicopters succeed water spray several times to Reactor Building of these units.

Best regards;

Katsumi

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 7:07 PM
To: Sheron, Brian
Subject: RESPONSE - Seismic

Thanks, Brian.

From: Sheron, Brian
Sent: Thursday, March 17, 2011 6:52 PM
To: Case, Michael; Richards, Stuart; Kammerer, Annie; Ake, Jon; Murphy, Andrew
Cc: Weber, Michael
Subject: Seismic

- 1.) Secretary Chu at DOE is scheduled to be interviewed on 5 talk shows Sunday morning. He has requested a 1 page summary of our seismic regulatory requirements. I gave him the 3/16 version of your seismic Q&A package and suggested his staff could screen it and perhaps pull out pertinent info on our regs, however, I haven't read it yet and don't know to what extent it does or doesn't discuss our regulatory requirements. Can you quickly pull together a 1-2 page summary of our seismic regulatory requirements, run them by NRR if possible, and then e-mail them to Pete Lyons at DOE (peter.lyons@nuclear.energy.gov). He needs them tomorrow. Please CC me. Remember, he is just looking for a high level summary sufficient to answer likely questions he might get during the interviews.
- 2.) Can you please e-mail the latest version of your seismic Q&As to Mike Weber.

Thanks.

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 7:04 PM
To: LIA07 Hoc
Cc: Wiggins, Jim; Evans, Michele; McDermott, Brian
Subject: RESPONSE - Update for Go Books - 1800 EDT, March 17, 2011

Thanks, Sara. During the day shift today, I noted that receiving the emails of documents for the Go book was not working for me personally, because I was getting them on my blackberry without a way to print them out. I think I got a couple updates while in the Center, but am not positive. I raised this challenge to Jim Wiggins and I think he is working with OIS to come up with a better solution.

From: LIA07 Hoc
Sent: Thursday, March 17, 2011 6:05 PM
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Pace, Patti; Speiser, Herald; Gibbs, Catina; Loyd, Susan; Leeds, Eric; Cohen, Shari; Schwarz, Sherry; Haney, Catherine; Walls, Lorena; Sheron, Brian; Walker, Dwight; Johnson, Michael; Flory, Shirley
Subject: Update for Go Books - 1800 EDT, March 17, 2011

Please find attached updated information for the "Go Books".

The updates include:

- The 1700, 3/17/11 Status Update
- The 1700, 3/17/11 Talking Points "Two-Pager"
- The latest ET Chronology
- The latest TEPCO Press Releases
- Remarks by President Obama on the Japan situation

Please let me know if you have any questions or concerns.

-Sara

Sara Mroz
Office of Nuclear Security and Incident Response
US Nuclear Regulatory Commission
sara.mroz@nrc.gov
LIA07.HOC@nrc.gov (Operations Center)

2/107

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 6:55 PM
To: Doolittle, Elizabeth
Cc: Haney, Catherine; Dorman, Dan; Wiggins, Jim; Evans, Michele
Subject: RESPONSE - NMSS Staff Volunteers for Japan Related Activities.docx

Wow! What a great response. Thanks for the support, Beth!

From: Doolittle, Elizabeth
Sent: Thursday, March 17, 2011 5:24 PM
To: Evans, Michele
Cc: Weber, Michael; Dorman, Dan
Subject: NMSS Staff Volunteers for Japan Related Activities.docx

Michele,

The attached file contains a table showing NMSS staff members who would be interested in serving in the Ops Center to support the response to activities in Japan. Information on their qualifications for positions of interest is included. The list also indicates who would be interested in deployment to Japan and passport/VISA status. Several of our staff members expressed interest in supporting OIP, and this information is included as well.

Please don't hesitate to contact me if there is anything else you need.

Sincerely,

Beth Doolittle

Elizabeth L. Doolittle
Technical Assistant to the Office Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
(301) 492-3238

Wittick, Brian

From: Wittick, Brian
Sent: Thursday, April 14, 2011 6:53 PM
To: Matheson, Mary
Cc: Mitchell, Reggie; Kaplan, Michele; Mamish, Nader; 'McKenna, Surin (DCHA/OFDA)'; Reynolds, Steven; Casto, Chuck; Bloom, Steven
Subject: RE: Japan support

Mary

Thank you for contacting me. I have been working closely with Surin since my arrival a few days ago. Surin will be returning to the U.S. around 24 April and desires to transition the Embassy interface to me at that time, while recognizing their funding runs through the end of the month. Surin is Cc'd here.

I look forward to working with you on this transition.

Thanks
Brian

From: Matheson, Mary
Sent: Thursday, April 14, 2011 6:18 PM
To: Wittick, Brian
Cc: Mitchell, Reggie; Kaplan, Michele; Mamish, Nader
Subject: Japan support

Hi Brian,

OCFO has been tasked to ensure all elements of support are taken care of when the humanitarian efforts supported by USAID end on April 30, 2011. I was hoping you could take care of a few items while you are still there to support the transition.

USAID currently has the agreement through State/ICASS for reimbursing the US Embassy in Japan for support they have been providing the NRC staff working over in Japan. NRC will need to start funding this effort starting May 1, 2011. This agreement includes embassy support and the translator services. An employee from USAID, I believe her name is Suri, is going to speak to you about the logistics on how to get this done. I have all of the funding information to support the transition, I just need a POC at the embassy that I can work directly with to coordinate the transition. I need cost estimates for these services and I have additional questions relating to lodging. If you could pave the way for me to speak to or e-mail the correct person I could use the help.

I look forward to hearing from you.

Thanks in advance for your help.

Mary

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 6:20 PM
To: OST02 HOC; LIA05 Hoc
Subject: FYI - Congressional Liaison Team Briefing

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 3:31 PM
To: Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Droggitis, Spiros; Powell, Amy; Virgilio, Martin
Subject: Phone Congressional Liaison Team Briefing

All—We had our first call to Congressional staffers at 1:30 today. The call lasted about 1 hour. We invited over 500 staffers to listen in and ask questions. Mike and his team did a great job. It was good to spend the extra time today providing background material to them, but I'm thinking that we will probably shorten our briefing and instead answer more questions in the future. Spiros will be contacting you to set the schedule for the next several days. We will be doing the call at 3:00 daily. This effort is different than the 2 briefings tomorrow on the Hill. Thanks for all your help! Becky

From: Johnson, Michael
Sent: Thursday, March 17, 2011 2:57 PM
To: Haney, Catherine; Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: Re:

I can't support before late afternoon. I am planning on supporting a call at 300 tomorrow.
From my blackberry.

From: Haney, Catherine
To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Sent: Thu Mar 17 13:47:00 2011
Subject: RE:

Seems to me that Brian might be the best candidate since he is already downtown. I tried calling him to discuss who would go. Shirley told me that Brian was at DOE (meeting doesn't end until 5 pm) and that his schedule on Friday was open. She tentatively put the 11:45 briefing on his schedule.

I'm happy to be a back up. If Brian can't do it, I'd like to go down and listen in on the 9:30 briefing.

Unfortunately, we might not have a firm answer until later this evening unless Mike J wants to volunteer in Brian's place.

As an aside, I'm scheduled to leave for France on Saturday afternoon. I spoke with Mike W last night about whether I should cancel. The view was I should continue with the trip. Of course, I can change plans up until I get on the plane. You might want to consider using Dan as a communicator next week. I will leave my "go to book" for him.

2/110

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 1:00 PM
To: Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

Unfortunately this would conflict with the NRC all hands briefing. Can 1 of the 4 "communicators" handle the 11:45?

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 12:48 PM
To: Sheron, Brian; Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

The House has now asked for the same briefing at 11:45. Bill are you available for that one too?

From: Sheron, Brian
Sent: Thursday, March 17, 2011 10:05 AM
To: Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject: RE:

I should be able to attend. I'll meet you in the ops center around 7am.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 9:44 AM
To: Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject:

Senate EPW staff has requested a briefing Fri @9:30 (location TBD). I believe that Pete Lyons will be representing DOE. I am planning to represent NRC. I invite any of the 4 addressees of this email (the 4 new "Communicators") to come along to get a sense of what the hill is interested in, etc. It is totally your call. I plan to be in the ops center at 7am to get a last minute update and then take metro (7:45) downtown.

Please let me know whether you plan to attend or not.

Bill

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 6:15 PM
To: Haney, Catherine
Subject: RESPONSE - BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan

Good. Thanks for taking the initiative on these questions.

From: Haney, Catherine
Sent: Thursday, March 17, 2011 1:49 PM
To: Weber, Michael
Cc: Dorman, Dan; McCree, Victor
Subject: FW: BRANCH CHIEF ACTION: Qs and As for Fuel Cycle Facilities in Response to the Earthquake and subsequent events in Japan

Mike,

FYI. I'm trying to be proactive as I think it is only a matter of time before these questions get asked about fuel facilities.

We will coordinate with R2 and share with the Ops Center once they are developed.

Cathy

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 ore 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.

2/111

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

Weber, Michael

From: Weber, Michael
Sent: Thursday, March 17, 2011 6:11 PM
To: OST02 HOC; LIA05 Hoc; RST01 Hoc; PMT01 Hoc
Subject: FYI - Fukushima No. 1
Attachments: 3-16-11-Fukushima.ppt

You may find this information helpful from Dr. Corradini of the ACRS.

From: Lee, Richard
To: Gibson, Kathy; Scott, Michael
Sent: Thu Mar 17 08:39:25 2011
Subject: Fukushima No. 1

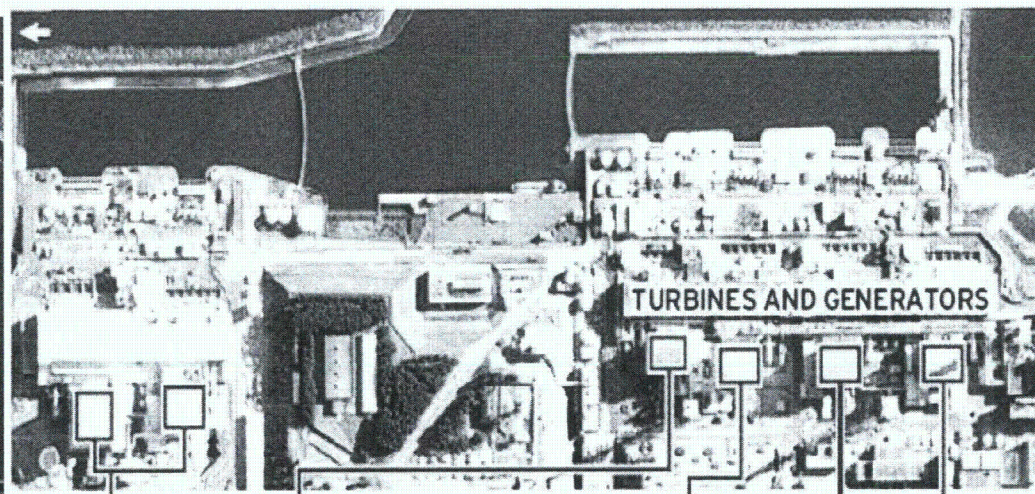
Kathy & Mike:

Attached is VGs received from Prof. Mike Corradini yesterday.

Richard

Fukushima Daiichi Nuclear Station

- Six BWR units at the Fukushima Nuclear Station:
 - Unit 1: 439 MWe BWR, 1971 (unit was in operation prior to event)
 - Unit 2: 760 MWe BWR, 1974 (unit was in operation prior to event)
 - Unit 3: 760 MWe BWR, 1976 (unit was in operation prior to event)
 - Unit 4: 760 MWe BWR, 1978 (unit was in outage prior to event)
 - Unit 5: 760 MWe BWR, 1978 (unit was in outage prior to event)
 - Unit 6: 1067 MWe BWR, 1979 (unit was in outage prior to event)



Reactors 5 and 6
Had been stopped
for regular
maintenance.

Reactor 1
Explosion occurred near here about
3:40pm on Saturday, damaging
exterior walls. Engineers flooding
the core with seawater to keep it
from overheating.

Reactor 2
Engineers
adding
water to
reactor.

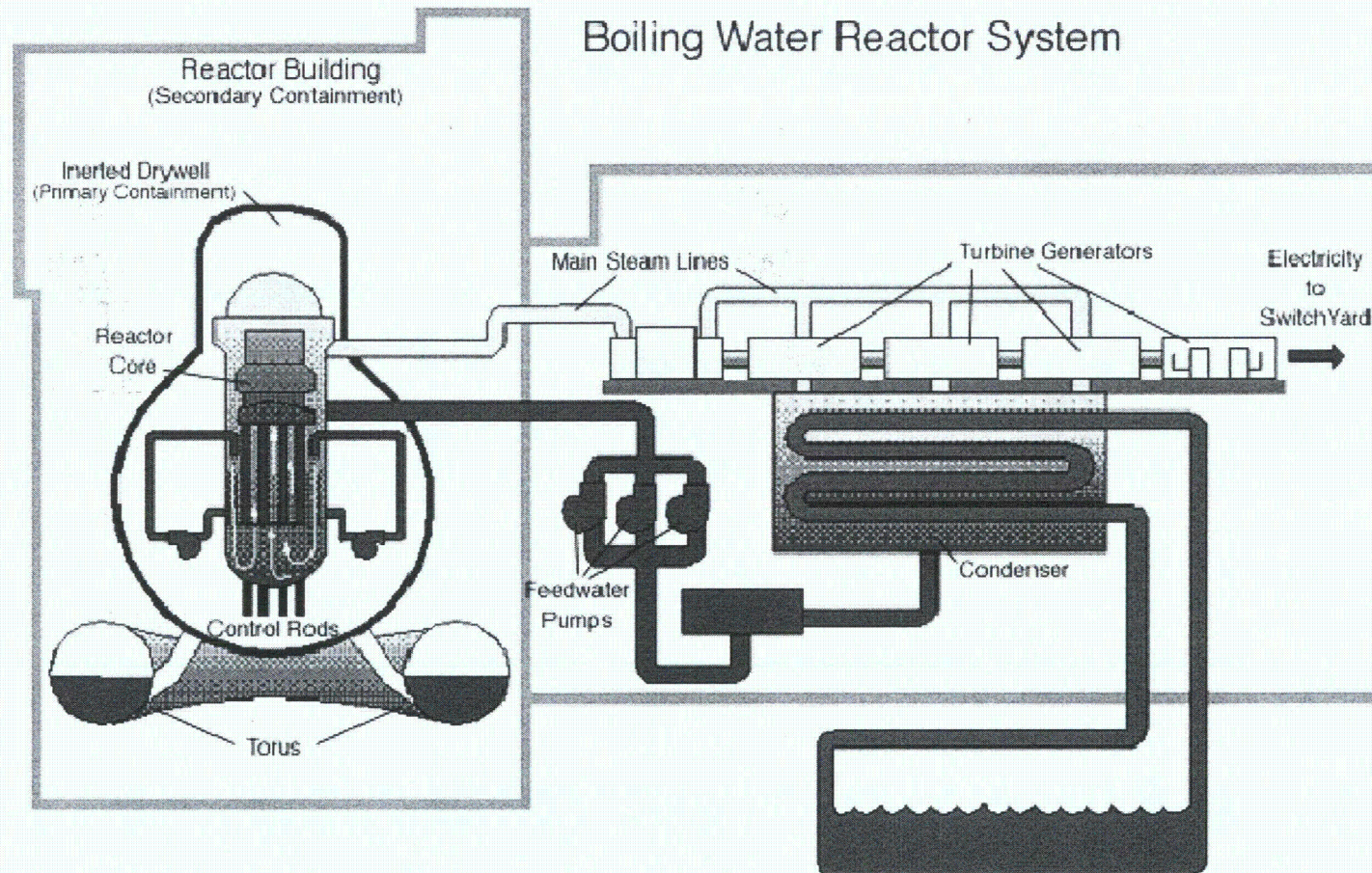
Reactor 3
In partial meltdown.
Engineers are
flooding core with
seawater to keep it
from overheating.

Reactor 4
Had been
stopped
for regular
maintenance.

SOURCE: NYT; TOKYO ELECTRIC POWER; SATELLITE IMAGE BY DIGITAL GLOBE VIA GOOGLE EARTH.

Fukushima Daiichi Unit 1

- Typical BWR 3 and 4 Reactor Design
- Some similarities to Duane Arnold Power Plant in Iowa



Fukushima Daiichi Unit 1

■Mechanism of Boiling Water Reactor Power Station

Primary Containment Vessel(Dry Well)

It would confine radioactive substances discharged from the reactor facilities if some pipes were broken by accident.

Reactor Pressure Vessel

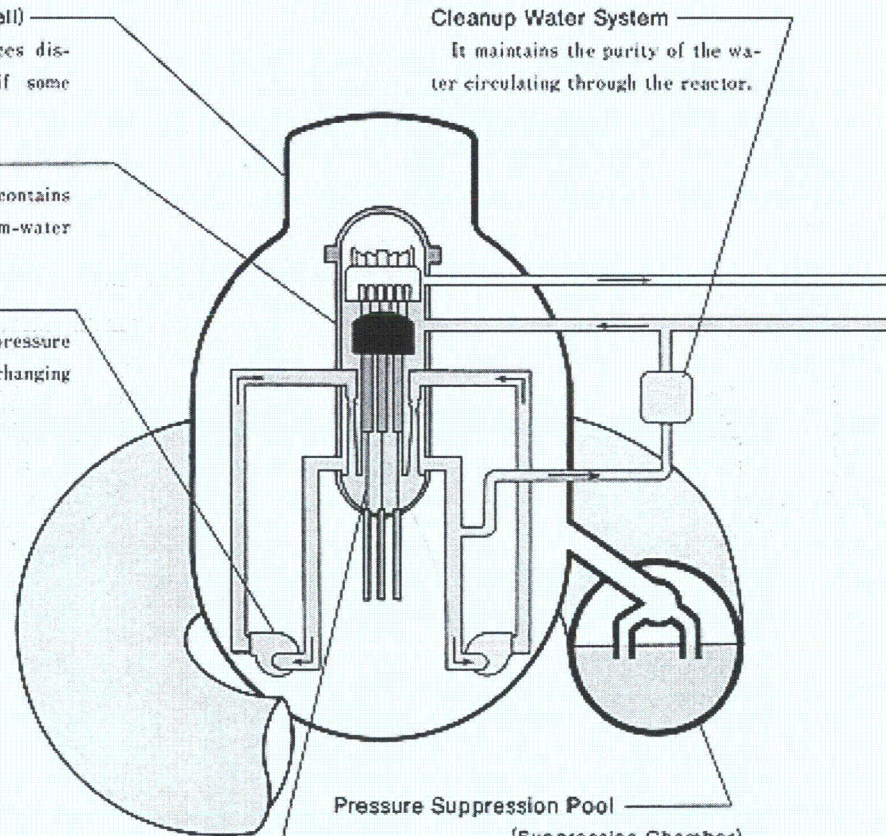
It is made of 12cm thick steel and contains fuel, control rods, jet pumps, steam-water separator and steam dryer.

Primary Recirculation pump

It circulates water in the reactor pressure vessel and changes reactor power by changing water quantity.

Cleanup Water System

It maintains the purity of the water circulating through the reactor.



Control Rods

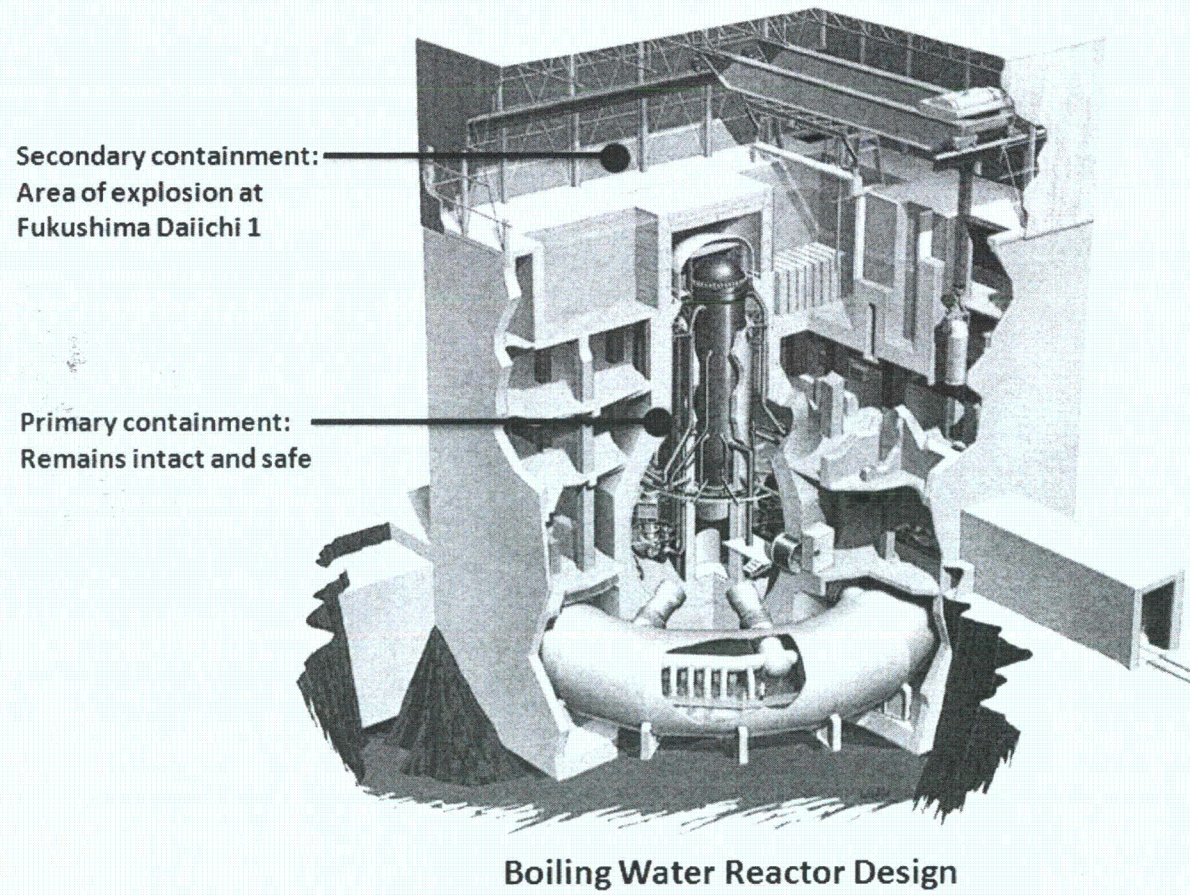
They are used to start and stop the reactor and to change reactor power (amount of nuclear fission) by individually inserting and extracting from the bottom of the reactor.

Pressure Suppression Pool

(Suppression Chamber)

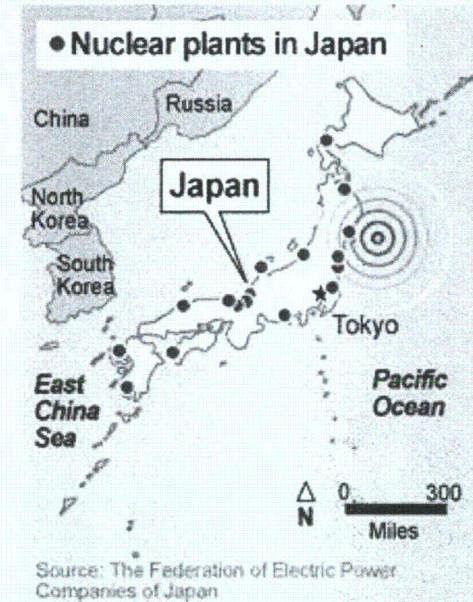
It always contains water. Should pipes in the primary containment vessel ever break, leaked steam would be conducted into the pool, where it would be cooled down and condensed with a large amount of water to suppress any rise in pressure in the primary containment vessel.

Fukushima Daiichi Unit 1

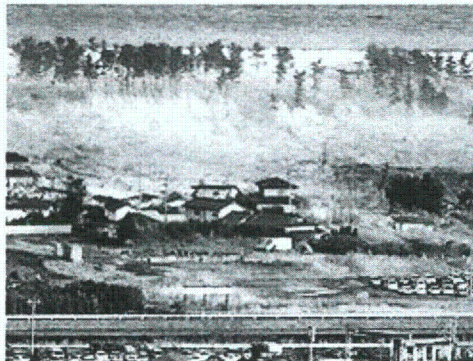


Event Initiation

- The Fukushima nuclear facilities were damaged in a magnitude 9 earthquake on March 11 (Japan time), centered offshore of the Sendai region, which contains the capital Tokyo.
 - Plant designed for magnitude 8.2 earthquake. An 9 magnitude quake is much greater in magnitude.
- Serious secondary effects followed including a significantly larger tsunami, significant aftershocks and a major fire at a fossil fuel installation.



By Janet Loehrke USA TODAY



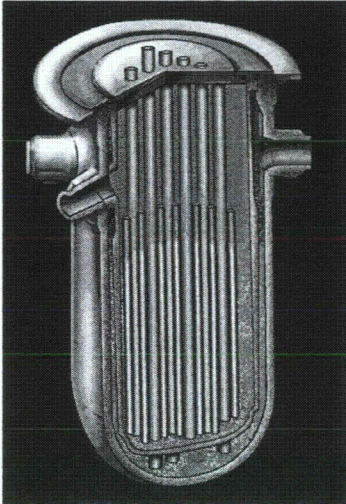
Initial Response

- Nuclear reactors were shutdown automatically. Within seconds the control rods were inserted into core and nuclear chain reaction stopped.
- Cooling systems were placed in operation to remove the residual heat. The residual heat load is about 3% of the heat load under normal operating conditions decreasing to much less than 1% after days.
- Earthquake resulted in the loss of offsite power which is the normal supply to a plant when it is shutdown.
- Emergency Diesel Generators started and powered station emergency cooling systems.
- One hour later, the station was struck by the tsunami. The tsunami was larger than what the plant was designed for (20ft waves). The tsunami took out all multiple sets of the backup Emergency Diesel generators and likely damaged the service water pumps which provide cooling from the sea.
- Reactor operators were able to utilize emergency battery power to provide power for cooling the core for 8 hours.
- Operators followed abnormal operating procedures and emergency operating procedures.

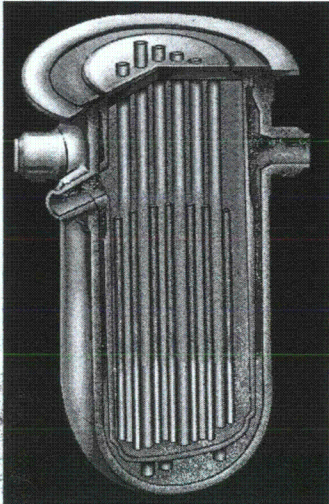
Loss of Makeup

- Offsite power could not be restored and delays occurred obtaining and connecting portable generators.
- After the batteries ran out, residual heat could not be carried away any more.
- Reactor temperatures increased and water levels in the reactor decreased, eventually uncovering and overheating the core.
- Hydrogen was produced from metal-clad/water reactions in the reactor.
- Operators vented the reactor to relieve steam pressure and energy (and hydrogen) was released into the primary containment (drywell) causing primary containment temperatures and pressures to increase.
- Operators took actions to vent the primary containment to control containment pressure and hydrogen levels through the wetwell. Required to protect the primary containment from failure.
- Primary Containment Venting is through a filtered path that travels through duct work in the secondary containment to an elevated release point on the refuel floor (on top of the reactor building).
- A hydrogen detonation subsequently occurred while venting the reactor building above the drywell. Occurred shortly following an aftershock at the station. Spark likely ignited hydrogen.

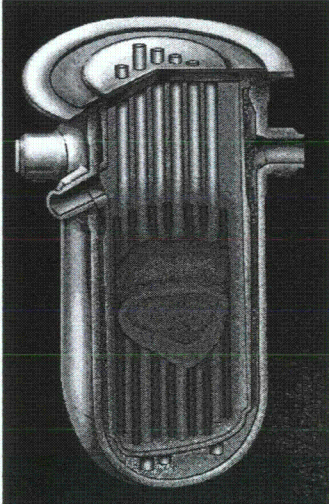
Core Damage Sequence



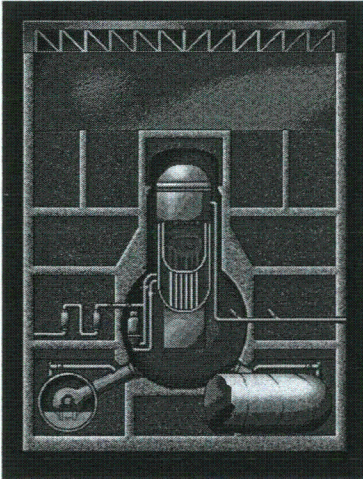
Core Uncovered



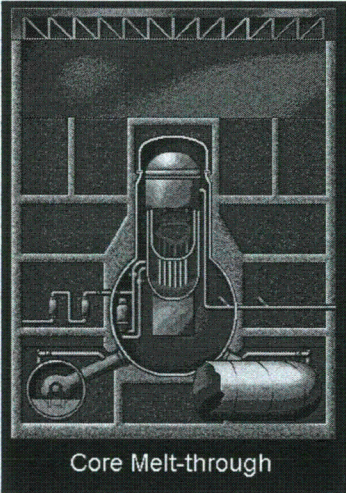
Fuel Overheating



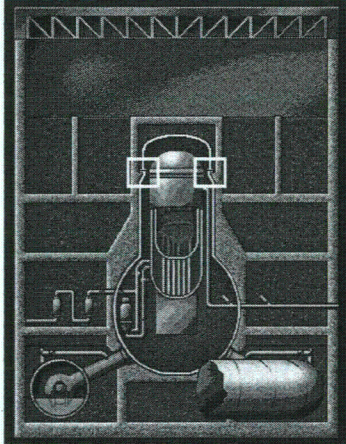
Fuel melting - Core Damaged



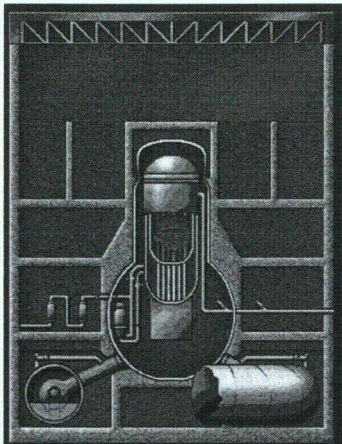
Core Damaged but retained in vessel



Core Melt-through
Some portions of core melt into lower RPV head

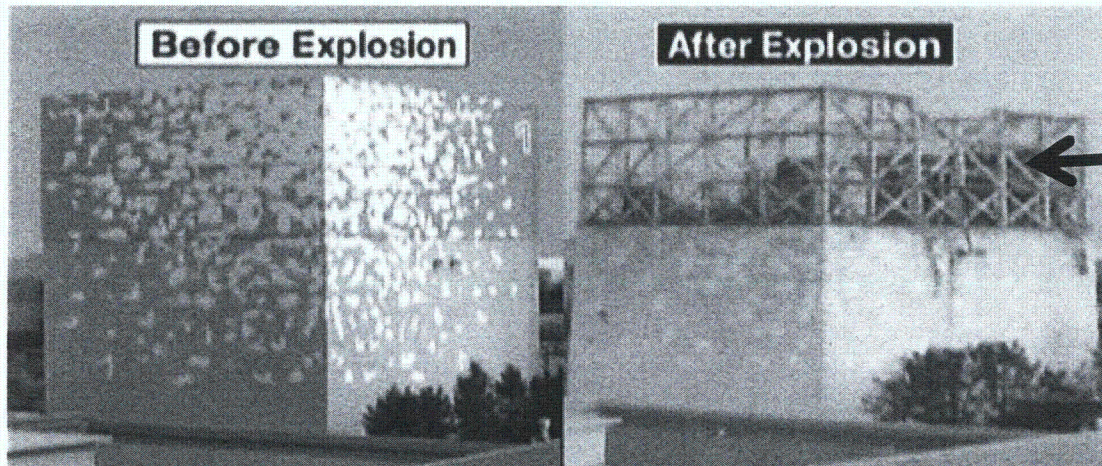


Containment pressurizes.
Leakage possible at drywell head



Releases of hydrogen into secondary containment

Hydrogen Detonation at Unit 1



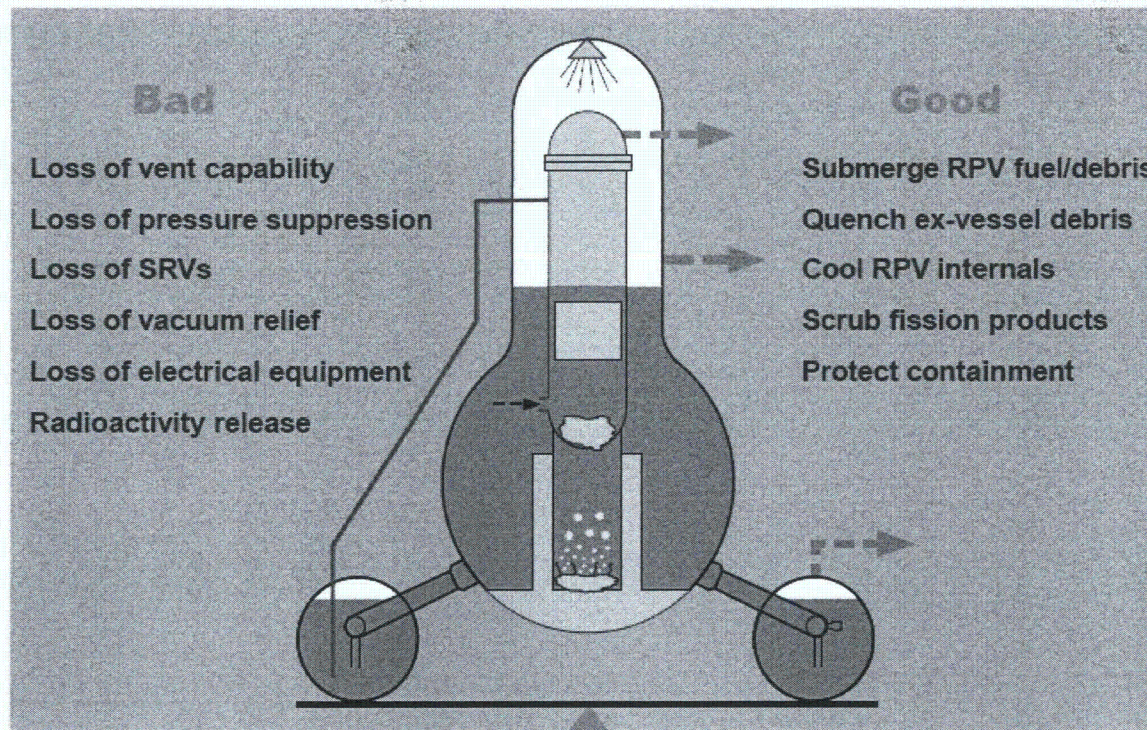
Refuel Floor

Reactor Building

Mitigating Actions

- The station was able to deploy portable power generators and utilize portable fire pumps to inject sea water into the reactor and primary containment.
- Station operators began flooding the reactor vessel
- Reports suggest that pumps were also injecting water into the containment – but it's unclear
- Boric acid was added to the seawater used for injection. Boric acid is “liquid control rod”. The boron captures neutrons and speeds up the cooling down of the core. Boron also reduces the release of iodine by buffering the containment water pH.

Containment Flooding Effects



Emergency Response

- Equivalent of General Emergency declared to the initial events in Unit 1 on Friday.
- Evacuation of public performed within 20 km (13 miles) of plant; approximately 200,000 people evacuated and sheltering in place within 30km (20 miles).
- Similar hydrogen detonation subsequently occurred at Unit 3 late on Sunday, March 14th (Japan time). Primary containment appears to remain intact at Unit's 1 and 3 throughout the accident. There was considerable damage to the secondary containment (reactor building). A similar scenario occurred in Unit 2 on Tuesday.
- Recorded radiation levels have spiked after each event (above) at the Fukushima Daiichi site (140-800mrem/hr). Radiation levels were subsequently reduced to a few millirem after the after cooling was restored. The NRC's radiation dose limit for the public is 100 millirem per year and natural background is about 300 mrem per year.
- Several injured workers were reported at the plant with radiation exposure of ~10rem.
- Authorities distributed Potassium-iodide tablets to protect the public from potential health effects of radioactive isotopes of iodine that could potentially be released. This is quickly taken up by the body and its presence prevents the take-up of iodine-131 should people be exposed to it.
- Over 300 after shocks have occurred and continue to challenge station response.
- **THE SITUATION FOR SPENT FUEL POOLS HAS NOT BEEN ADDRESSED HERE**

Merzke, Daniel

From: Merzke, Daniel
Sent: Thursday, March 17, 2011 7:50 AM
To: Howe, Allen
Subject: FW: Japan Event Commission Meeting
Attachments: 110321 NRC Response to Events in Japan Scheduling Note.docx; 110321 Closed Events in Japan and Commission Agenda Scheduling Note.docx

Allen, here are the scheduling notes that SECY sent to the Chairman's office.

From: Baval, Rochelle
Sent: Thursday, March 17, 2011 7:43 AM
To: Andersen, James; Merzke, Daniel
Cc: Laufer, Richard
Subject: RE: Japan Event Commission Meeting

Good Morning,

Attached are the two scheduling notes for meetings regarding the events in Japan that were sent to the Chairman's office yesterday. Both say the meetings are on Monday, but there has not been a decision when the meetings will be held. They could be Monday, Tuesday or Wednesday. I'm hoping that we can at least get this decision today.

The closed meeting is about NRC's strategy to address significant issues and the Commission's agenda (what meetings should the Commission have based on the events in Japan-ones already scheduled and new meetings; what meetings should be postponed and be replaced by different meetings; what papers should the Commission focus on; what papers could be delayed), all based on the events in Japan and how we may need to refocus, at least for the next six months.

Let me know if there are questions.

I'll let you know as we get decisions on these meetings.

Rochelle

From: Andersen, James
Sent: Wednesday, March 16, 2011 12:07 PM
To: Baval, Rochelle
Cc: Merzke, Daniel
Subject: Japan Event Commission Meeting

Rochelle,

We are starting to get questions from the staff on this meeting. Can you please use Dan and myself as the OEDO contacts when you find out any information.. I would like to try to keep this somewhat in process. Thanks.

Jim A.

Draft: 3/16/11

SCHEDULING NOTE

Title: **BRIEFING ON NRC RESPONSE TO RECENT NUCLEAR EVENTS IN JAPAN (Public Meeting)**

Purpose: To provide the Commission a status on the recent events in Japan, NRC's response, and planned actions.

Scheduled: **March 21, 2011**
9:00 am

Duration: Approx. 2 hours

Location: Commissioners' Conference Room OWFN

Participants: **Presentation**

NRC Staff Panel **50 mins.***

Bill Borchardt, Executive Director for Operations **15 mins.***
Topic: Overview of Japanese event and U.S. response

Mike Weber, Deputy Executive Director Materials, Waste, Research, State, Tribal and Compliance Programs **10 mins.***
Topic: Potential Consequences; what will be seen in the U.S.

Marty Virgilio, Deputy Executive Director for Reactor and Preparedness Programs **10 mins.***
Topic: Situation assessment for U.S. reactors and applicants

Elliot Brenner, Director, Office of Public Affairs **5 mins.***
Topic: Communication challenges

Eric Leeds, Director, Office of Nuclear Reactor Regulation **10 mins.***
Topic: Path forward; near term and longer term

Commission Q & A **50 mins.**

Discussion – Wrap-up **5 mins.**

Documents:

Background materials due to SECY: prior to the briefing.

Slides due to SECY: prior to the briefing.

Draft: 3/16/11

SCHEDULING NOTE

Title: DISCUSSION OF MANAGEMENT ISSUES (Closed – Ex. 9)

Purpose: To provide the Commission an opportunity to discuss strategy for addressing issues of most interest for inquiry based on the recent events in Japan and discuss the focus of the Commission's agenda.

Scheduled: **March 21, 2011**
11:00 am

Duration: Approx. 1.5 hours

Location: Commissioners' Conference Room, 1st fl OWFN

NRC Staff

Presentation
20 mins.*

Topics:

- Strategy for Addressing Issues of Most Interest for Inquiry Based on the Recent Events in Japan
- Focus of the Commission's Agenda over the Next Six Months

Commission Q & A and Discussion **50 mins.**

Discussion – Wrap-up **5 mins.**

*For presentation only and does not include time for Commission Q & A's

Documents:

Background materials due to SECY: prior to the briefing.

Slides due to SECY: prior to the briefing.

Landau, Mindy

From: Landau, Mindy
Sent: Thursday, March 17, 2011 7:20 AM
To: Barkley, Richard
Subject: RE: 2 more letters, FYI

Thanks - Roger and I have already begun to realize that business as usual probably won't exist for a long time. We will be getting together with OCA once they have a minute to try and establish a game plan and will certainly bring you in on whatever we come up with.

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

From: Barkley, Richard
Sent: Wednesday, March 16, 2011 9:07 PM
To: Landau, Mindy
Subject: FW: 2 more letters, FYI

Mindy,

Bill will support you in any request to expand support to Roger.

Based on the hearings today and the news coverage, my best guess is that 1/4 of the correspondence this year will be focused on the older Mark I BWRs in Region I (VY, Pilgrim and Oyster Creek), 1/4 will be on Indian Point, 1/4 on the west coast plants, and 1/4 being scattered individual BWRs or nation-wide issues.

Try to keep smiling.

From: Dean, Bill
Sent: Tuesday, March 15, 2011 7:43 PM
To: Barkley, Richard; Lew, David; Sheehan, Neil; Screnci, Diane; McNamara, Nancy; Tifft, Doug; Roberts, Darrell; Clifford, James; Wilson, Peter; Weerakkody, Sunil; Lorson, Raymond; Collins, Daniel
Subject: Re: 2 more letters, FYI

Rich,
We have an action out of the retreat to outreach to HQ re: forming a team to respond to correspondence similar to post 9/11. We should not be trying to deal with this influx as individual items. As I recall we leveraged specific postings on our web page as a source of info too.

Bill Dean
Regional Administrator
Region I, USNRC
Sent from NRC BlackBerry

Landau, Mindy

From: Landau, Mindy
Sent: Thursday, March 17, 2011 2:49 PM
To: Rihm, Roger; Ellmers, Glenn; Harrington, Holly
Subject: FW: Japan event Q&As - additional info

From: Leeds, Eric
Sent: Thursday, March 17, 2011 2:38 PM
To: Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art; Boger, Bruce; Grobe, Jack; Wiggins, Jim; Evans, Michele; Sheron, Brian; Uhle, Jennifer; Johnson, Michael; Holahan, Gary; Haney, Catherine; Dorman, Dan; Miller, Charles; Moore, Scott; Doane, Margaret; Mamish, Nader; Boyce, Thomas (OIS); Schmidt, Rebecca; Powell, Amy; Brenner, Eliot; Hayden, Elizabeth; McDermott, Brian
Cc: Virgilio, Martin; Weber, Michael; Ash, Darren; Nguyen, Quynh; Meighan, Sean; Kammerer, Annie; Landau, Mindy; Wittick, Brian; Morris, Scott; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Galloway, Melanie; Giitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; McGinty, Tim; Nelson, Robert; Quay, Theodore; Ruland, William; Skeen, David
Subject: Japan event Q&As - additional info

I've assigned Bob Nelson, Deputy Director, Division of Operating Reactor Licensing, as the NRR Coordinator for External Communications related to NRR's response to the recent events in Japan. 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. Assisting Nelson will be Sean Meighan and Quynh Nguyen from the NRR front office, Eric Thomas from DIRS and a communications "tiger team" being formulated in DORL headed by Mike Markley. Harold Chernoff will also provide assistance as needed. Please forward all of your requests for support in this area to Nelson. (Extension 7298 and cell: 703-244-7493).

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

Andersen, James

From: Andersen, James
Sent: Friday, March 18, 2011 6:41 PM
To: Blake, Kathleen
Subject: RE: Materials for March 21st Commission Briefing on Japan Event

Kathleen, I'm still waiting, I don't know what to tell you.

Jim A.

From: Blake, Kathleen
Sent: Friday, March 18, 2011 6:02 PM
To: Andersen, James
Subject: FW: Materials for March 21st Commission Briefing on Japan Event

Jim: Were you sending the slides tonight? kb

Kathleen M. Blake

Administrative Assistant
to Commissioner Apostolakis
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852
301-415-1810

From: Laufer, Richard
Sent: Friday, March 18, 2011 4:46 PM
To: Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffrey; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth
Cc: Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Andersen, James; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly;
Subject: Materials for March 21st Commission Briefing on Japan Event

Attached is the final scheduling note for the March 21st Commission briefing on the Japan Event. Staff slides should be emailed later today by Jim Andersen (OEDO).

Note that Commissioner Magwood goes first with questions.

Below are a few meeting logistics for your information:

- Bill Borchardt will be the only NRC staff member at the table.
- The seats in the well are reserved for DEDOs / Office Directors
- The stadium seating to the Commissioners left will be reserved for designated technical staff (who may be called upon during the meeting) and Commission Office EAs/TAs
- The stadium seating to the Commissioners right will be reserved for Press Corps/OPA

Some of the stadium seating in front of the Commissioners will be reserved for VIPs (Congressional Office staffers).

- The remaining stadium seats in front of the Commissioners will be open to the public.

Once the available public seats are filled, members of the public will be directed around the back of the building where they will enter the TWFN Auditorium to view the Commission meeting.

Thanks,
Rich

Weber, Michael

From: Weber, Michael
Sent: Friday, March 18, 2011 8:30 PM
To: LIA06 Hoc
Subject: Response - Japan Response - Congressional One-pager

Sure, Mark. I sent it to LIA05 at about 1900. You should be able to find it there or at LIA07. I also sent it to your LAN address. I thought this might help.

From: LIA06 Hoc
To: Weber, Michael
Sent: Fri Mar 18 19:22:26 2011
Subject: Japan Response - Congressional One-pager

Mike,

Amy Powell (OCA) thought that you had developed an outline for the one-pager that you asked the Liaison Team to develop for Congressional staffer. If you have developed an outline, please forward it to LIA06 hoc.

Mark Thaggard
Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

2/117

From: [Culp, Lisa](#)
To: [Hanev, Catherine](#)
Subject: FW: from irsn
Date: Friday, March 18, 2011 3:53:12 PM

From: Leslie, Bret
Sent: Friday, March 18, 2011 3:35 PM
To: Culp, Lisa
Subject: from irsn

The most recent update

Backgrounder

Situation of nuclear reactors in Japan quake
major occurred March 11, 2011

Status report of 18 March 2011 to 14 hours

Central Fukushima I (Daiichi)

Since the previous information point March 17, 2011 at 15:00 on the situation in
Central

Fukushima Daiichi, information obtained by the technical center's crisis can IRSN
to establish the next state facilities.

State pools

The quantities of fuel assemblies present in pools of Units 1 to 4 are
confirmed (respectively 292, 587, 514 and 1500 connections). Residual powers
associates have been reported by TEPCO. On this basis, the IRSN has reassessed
the time before

beginning of uncovering assemblies.

The Power Reactor No. 2 could be restored in the afternoon. Unit 1
could be replenished from the mains common slice 1 and slice 2. IRSN
suspected of leaking pools 1 and 3.

Reactor pool No. 1

The power to be removed is very small (0.07 MW). A drop in water level is assumed
to leak

in this pool. The use of water hoses on trucks appear to be planned.

Pool reactor No. 2

The pool is boiling. The use of water hoses on trucks appear to be planned, despite
the integrity of the upper cladding of the building.

Pool of reactor No. 3

The first was stopped by boiling the extra water by helicopters and water hoses on
truck. The IRSN has no information on the effectiveness of watering by water
cannons.

IRSN believes that the slab missile located vertically from the tank and the enclosure
containment (see Annex 1) had to be destroyed in the explosion of hydrogen of 14
March 2011. If

structures that support this slab were also affected, it is conceivable that the level
water above the maximum possible fuel assemblies stored in the pool is
decreased (in the worst cases: 1 meter above the top of the joints). This would

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explain the flow

dose very important right of the building.

Pool reactor No. 4

The pool seems to boil, a steam plume is visible on the engine. Without extra effective, uncovering begin no earlier than March 21. The use of water cannons on trucks appear to be planned.

Reactor pool # 5

The temperature of the water of this pool is stabilized. The water level is controlled.

Pool reactor No. 6

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The temperature of the water of this pool is stabilized. The water level is controlled.

Cooling pool common site

This pool would contain about 6500 assemblies. Although the power generated per unit

by them is significantly lower than that generated from these assemblages in pools reactors, they must nevertheless be well chilled.

The IRSN has no information on the status of this pool and could not make estimation delay before uncovering assemblies.

State Reactor

IRSN is concerned about the amount of salt crystallized after the injection of seawater into the

reactor vessels. In general, it should restore water reserves

Fresh on the site.

Reactor No. 1

According to the operator, 70% of the reactor core is damaged. The injection of seawater into the

tank would be maintained to ensure core cooling but remains partially dewatered. The water in the tank is discharged into the containment via a valve.

The containment integrity is maintained. There is probably more operations depressurization of the containment. There would therefore be more direct release of products

radioactivity into the atmosphere.

The upper part of the reactor building was blown by an explosion. Control Room is very radiant, limiting the time spent by the stakeholders.

Reactor No. 2

According to the operator, 33% of the reactor core is damaged. The injection of seawater into the

vessel is maintained to ensure the cooling of the heart that is now under water.

The containment building is damaged, however it does not appear that the seal be filed

in question (the pressure inside the building is fluctuating). There is probably more depressurization operations of the containment. There would no longer release direct radioactive products into the atmosphere.

The control room is very radiant, limiting the time spent by the stakeholders.

Reactor No. 3

The reactor core is partially damaged. The injection of seawater in the tank would maintained to ensure core cooling but remains partially dewatered. The steam produced in the fuel tank in contact with the drains in the containment

that always seems tight. There is probably more operations depressurization containment. There would therefore be more direct release of radioactive products in the atmosphere.

The upper part of the reactor building was blown by an explosion. Control Room is very radiant, limiting the time spent by the stakeholders.

Reactor No. 4

The upper part of the building is damaged. The control room is very radiant, limiting the time spent by the stakeholders.

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Reactor No. 5 and 6

The heart of each of these reactors is loaded into fuel assemblies. Water injection in these vessels is scheduled for today Friday, March 18.

Central Fukushima II (DOE)

Reactor No. 1, 2, 3, 4

On this site, reactors 1, 2, 3 and 4 have reached normal stopping conditions (called "stop

cold "). No degradation of fuel has taken place on these reactors.

Central Onagawa and Tokai

There is no specific item to report.

Listen

Read phonetically

New! Click the words above to view alternate translations. [Dismiss](#)
Dictionary - [View detailed dictionary](#)

From: Sheron, Brian
To: Haney, Catherine; Dorman, Dan
Subject: FW: BRIAN SHERON'S COMMENTS ON JAPAN COMM BRIEF PRESENTATION
Date: Friday, March 18, 2011 10:10:46 PM

Note my comment #2 below. Is there a reason we would issue an IN to reactors but not fuel fab and recycle facilities?

From: Scott, Michael
Sent: Friday, March 18, 2011 5:52 PM
To: Howe, Allen; Gratton, Christopher; Leeds, Eric
Cc: Sheron, Brian; Gibson, Kathy; Uhle, Jennifer
Subject: BRIAN SHERON'S COMMENTS ON JAPAN COMM BRIEF PRESENTATION

Brian has been downtown and just now saw the slides. He had a couple of comments.

1. Slide 4 talking points discuss our collaboration with other Federal agencies, but bullets do not refer to those stakeholders in particular. This was similar to a comment made during today's dry run. Please ensure that collaboration and the role of other agencies are highlighted in the presentation.
2. Please consider the following in case the question arises: NRC has issued an IN for reactors regarding the Japan events. Begs the question: What about nonreactor facilities – lessons learned or impacts there?

Thanks

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From: [Weber, Michael](#)
To: [Haney, Catherine](#)
Subject: RESPONSE - Dan
Date: Friday, March 18, 2011 10:36:33 AM

Likely. We'll decide today.

From: Haney, Catherine
To: Weber, Michael
Sent: Fri Mar 18 09:17:20 2011
Subject: RE: RESPONSE - Dan

John and Vonna and Tim should do a good job running the office. Lawrence is away on leave.

Will succession planning be cancelled for next week? If no, I'll need someone to support my office – you? Charlie? Scott?

I just want to be sure there isn't more I can do (personally or by NMSS sr. mgr support) to help on the Agency response.

From: Weber, Michael
Sent: Friday, March 18, 2011 8:42 AM
To: Haney, Catherine
Subject: RESPONSE - Dan

I'm OK if you are confident that Vonna and John can lead your office in your absence. Dan would be an excellent candidate. If he goes, he may be out for several weeks.

From: Haney, Catherine
Sent: Friday, March 18, 2011 8:38 AM
To: Weber, Michael
Subject: Dan

I just spoke with Eric and told him that I fully support Dan going to Japan. This means we will both be out next week but I will monitor emails. Also, time difference is only 5 hours which will make communication easier.

John can act for Monday and Tuesday and Vonna can act for the remainder of the week. I had expected Dan to be on the ET next week so I had already adjusted the schedule to move meetings forward or into the next week.

As I'm not close to what is going on over there, I wanted to check with you to be sure you are still ok with me going tomorrow.

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Wittick, Brian

From: Wittick, Brian
Sent: Friday, April 15, 2011 6:57 AM
To: 'bannai-toshihiro@meti.go.jp'
Cc: 'nei-hisanori@meti.go.jp'; 'oshima-toshiyuki@meti.go.jp'; 'koyama-masaomi@meti.go.jp'; Reynolds, Steven; Casto, Chuck
Subject: Communication Plan Effective Document
Attachments: Communication Plan for Fukushima Events (revision 2).docx

Dear Bannai-san,

Thank you for meeting with me today to discuss our plan for communication. I enjoyed very much our conversation and the productive dialogue. I also appreciate the excellent walking directions from Koyama-san.

Attached is the updated plan based on the results of our conversation. With respect to Japanese/English communications, the Embassy operators do provide interpretation services if necessary. Also, the Department of Energy representative was not at the Embassy for me to confirm the communication plan for their call out notification system. I will have to work out the details of getting you set up to receive notifications from their system in the near future.

Request you implement the attached procedure at NISA when you can and request you let me know when it is active.

Again, thank you for your assistance.

Best regards,
Brian

From: Wittick, Brian
Sent: Thursday, April 14, 2011 9:12 PM
To: 'bannai-toshihiro@meti.go.jp'
Cc: 'nei-hisanori@meti.go.jp'; 'oshima-toshiyuki@meti.go.jp'
Subject: FW: Communication Plan draft document

Dear Bannai-san

Attached please find an updated draft of our proposed communication plan. This update incorporates your insights from yesterday and an input request from our Department of Energy. Our leadership also suggested, given concerns about the number of criteria, that maybe we could simplify several of the criteria to one that is more general and outcome driven such as "events that cause a site evacuation" or similar. I hope that we are able to dialogue on this more today so we can incorporate your thoughts.

Best regards,
Brian Wittick
U.S. Nuclear Regulatory Commission

**Government of Japan and U.S. Embassy/U.S. Nuclear Regulatory
Commission (NRC) Communication Plan
In Case of Follow-on Event at Fukushima Daiichi**

(This Plan is applicable until the Daiichi units are stable or until cancelled by either party)

Points of Contact:

U.S Embassy (operator) – 03 3224 5000

U.S. NRC Japan Duty Officer – 090 8876 0905

NISA International Affairs Office – 03 3501 1087

Event Criteria (based on site hazards that impact, or potentially impact, plant stability):

- Earthquakes of magnitude > 5.0 (Japanese scale)
- Events that result in loss of nuclear plant or spent fuel pool cooling for > 1 hour
- Site events that result in evacuation of the site for > 1 hour
- Events that would result in the need for reevaluation of accident mitigation measures or personnel protective actions (e.g. ventilation valve failure that results in a reduction of cooling flow)

Procedure:

1. It is requested that within 1 hour of identification of the above criteria to the government of Japan, reports should be made to the U.S. Embassy at the phone number provided above. When contacting the U.S. Embassy, call the phone number above and ask to speak to the Duty Officer. When the Duty Officer is connected provide the following information (Note: the Embassy operator can translate):
 - o Time of the event
 - o Impacts to site equipment or personnel
 - o Plans for recovery

The U.S. Embassy Duty Officer will notify other government agencies as appropriate.

2. The U.S. Department of Energy (DOE) is working with the Government of Japan to install a temporary radiation monitoring system near the Fukushima site that has automated call out capability when certain radiation thresholds are exceeded. DOE will set up the system to provide call outs to both GOJ and U.S. entities once activated.

From: Droggitis, Spiros
To: Haney, Catherine
Subject: RE: Phone Congressional Liaison Team Briefing - Latest schedule
Date: Friday, March 18, 2011 10:17:00 AM

Hi Cathy: I understand. Just trying to goose the system a bit. Any indication that they will let Dan do these? Have a safe trip. Spiros

From: Haney, Catherine
Sent: Friday, March 18, 2011 9:55 AM
To: Droggitis, Spiros
Subject: RE: Phone Congressional Liaison Team Briefing - Latest schedule

As of right now, I will be out of the country starting Saturday and returning on March 25.

From: Droggitis, Spiros
Sent: Friday, March 18, 2011 9:53 AM
To: Haney, Catherine; Leeds, Eric; Dorman, Dan
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Powell, Amy; Virgilio, Martin; Riley (OCA), Timothy; Belmore, Nancy; Schmidt, Rebecca; Johnson, Michael; Sheron, Brian; Borchardt, Bill
Subject: RE: Phone Congressional Liaison Team Briefing - Latest schedule

Here is what I have so far for the 3:00 pm Congressional briefings. I need a communicator for Saturday and Sunday. I understand the call can be made from home so there is not a need to come in for it. Let me know if you would prefer that we schedule with your Administrative Assistant. Thanks, Spiros

March 18 – Mike Johnson
March 19 –
March 20 –
March 21 – Brian Sheron
March 22 – Mike Johnson
March 23 – Brian Sheron
March 24 – Brian Sheron
March 25 –

I would appreciate if Cathy, Eric and Brian could give me slots that they would be able to cover for the calls so I can finalize the schedule. We'll provide the calling information later. Thanks for your help, Spiros

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 3:31 PM
To: Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Droggitis, Spiros; Powell, Amy; Virgilio, Martin
Subject: Phone Congressional Liaison Team Briefing

All—We had our first call to Congressional staffers at 1:30 today. The call lasted about 1 hour. We invited over 500 staffers to listen in and ask questions. Mike and his team did a

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great job. It was good to spend the extra time today providing background material to them, but I'm thinking that we will probably shorten our briefing and instead answer more questions in the future. Spiros will be contacting you to set the schedule for the next several days. We will be doing the call at 3:00 daily. This effort is different than the 2 briefings tomorrow on the Hill. Thanks for all your help! Becky

From: Johnson, Michael
Sent: Thursday, March 17, 2011 2:57 PM
To: Haney, Catherine; Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: Re:

I can't support before late afternoon. I am planning on supporting a call at 300 tomorrow.
From my blackberry.

From: Haney, Catherine
To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Sent: Thu Mar 17 13:47:00 2011
Subject: RE:

Seems to me that Brian might be the best candidate since he is already downtown. I tried calling him to discuss who would go. Shirley told me that Brian was at DOE (meeting doesn't end until 5 pm) and that his schedule on Friday was open. She tentatively put the 11:45 briefing on his schedule.

I'm happy to be a back up. If Brian can't do it, I'd like to go down and listen in on the 9:30 briefing.

Unfortunately, we might not have a firm answer until later this evening unless Mike J wants to volunteer in Brian's place.

As an aside, I'm scheduled to leave for France on Saturday afternoon. I spoke with Mike W last night about whether I should cancel. The view was I should continue with the trip. Of course, I can change plans up until I get on the plane. You might want to consider using Dan as a communicator next week. I will leave my "go to book" for him.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 1:00 PM
To: Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

Unfortunately this would conflict with the NRC all hands briefing. Can 1 of the 4 "communicators" handle the 11:45?

From: Schmidt, Rebecca
Sent: Thursday, March 17, 2011 12:48 PM
To: Sheron, Brian; Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

The House has now asked for the same briefing at 11:45. Bill are you available for that one too?

From: Sheron, Brian
Sent: Thursday, March 17, 2011 10:05 AM
To: Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject: RE:

I should be able to attend. I'll meet you in the ops center around 7am.

From: Borchardt, Bill
Sent: Thursday, March 17, 2011 9:44 AM
To: Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject:

Senate EPW staff has requested a briefing Fri @9:30 (location TBD). I believe that Pete Lyons will be representing DOE. I am planning to represent NRC. I invite any of the 4 addressees of this email (the 4 new "Communicators") to come along to get a sense of what the hill is interested in, etc. It is totally your call. I plan to be in the ops center at 7am to get a last minute update and then take metro (7:45) downtown.

Please let me know whether you plan to attend or not.

Bill



NUCLEAR ENERGY INSTITUTE

Frequently Asked Questions: Japanese Nuclear Energy Situation

1. *What is the nuclear industry doing in the short-term to respond to the accident at the Fukushima nuclear power plant?*

The nuclear energy industry's top priority remains providing Japan with the support necessary to achieve safe shutdown of the Fukushima reactors.

The accident at Fukushima Daiichi was caused, in part, by extraordinary natural forces that were outside the plant's required design parameters. Even though the full extent of damage to these reactors still is unknown, the combination of the earthquake and the tsunami challenged the structural integrity and safety of the plant. As more is learned about the Japanese events, more long-term corrective actions will be developed.

The U.S. nuclear energy industry has already started an assessment of the events in Japan and is taking steps to ensure that U.S. reactors could respond to events that may challenge safe operation of the facilities. These actions include:

- Verify each plant's capability to manage major challenges, such as aircraft impacts and losses of large areas of the plant due to natural events, fires or explosions. Specific actions include testing and inspecting equipment required to mitigate these events, and verifying that qualifications of operators and support staff required to implement them are current.
- Verify each plant's capability to manage a total loss of off-site power. This will require verification that all required materials are adequate and properly staged and that procedures are in place, and focusing operator training on these extreme events.
- Verify the capability to mitigate flooding and the impact of floods on systems inside and outside the plant. Specific actions include verifying required materials and equipment are properly located to protect them from flood.
- Perform walk-downs and inspection of important equipment needed to respond successfully to extreme events like fires and floods. This work will include analysis to identify any potential that equipment functions could be lost during seismic events appropriate for the site, and development of strategies to mitigate any potential vulnerabilities.

2. *Could an accident like the one at Japan's Fukushima Daiichi nuclear plant happen in the United States?*

It is difficult to answer this question until we have a better understanding of the precise problems and conditions that faced the operators at Fukushima Daiichi. We do know, however, that Fukushima Daiichi Units 1-3 lost all offsite power and emergency diesel generators. This situation is called "station blackout." U.S. nuclear power plants are designed to cope with a station blackout event that involves a loss of offsite power *and* onsite emergency power. The Nuclear Regulatory Commission's detailed regulations address this scenario. U.S. nuclear plants are required to conduct a "coping" assessment and develop a strategy to demonstrate to the NRC that they could maintain the plant in a

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safe condition during a station blackout scenario. These assessments, proposed modifications and operating procedures were reviewed and approved by the NRC. Several plants added additional AC power sources to comply with this regulation.

In addition, U.S. nuclear plant designs and operating practices since the terrorist events of September 11, 2001, are designed to mitigate severe accident scenarios such as aircraft impact, which include the complete loss of offsite power and all on-site emergency power sources *and* loss of large areas of the plant. U.S. nuclear plants are equipped to deal with these extreme events (“beyond-design-basis events”) and nuclear plant operations staff are trained to manage them.

U.S. nuclear plant designs include consideration of seismic events and tsunamis. It is important not to extrapolate earthquake and tsunami data from one location of the world to another when evaluating these natural hazards. These catastrophic natural events are very region- and location-specific, based on tectonic and geological fault line locations.

3. *How will the U.S. nuclear industry assess the impact of the Fukushima Daiichi accident?*

Until we understand clearly what has occurred at the Fukushima Daiichi nuclear power plants, and any consequences, it is difficult to speculate about the long-term impact on the U.S. nuclear energy program. The U.S. nuclear industry, the U.S. Nuclear Regulatory Commission, the Institute of Nuclear Power Operations, the World Association of Nuclear Operators and other expert organizations in the United States and around the world will conduct detailed reviews of the accident, identify lessons learned (both in terms of plant operation and design), and we will incorporate those lessons learned into the design and operation of U.S. nuclear power plants. When we fully understand the facts surrounding the event in Japan, we will use those insights to make nuclear energy even safer.

In the long-term, we believe that the U.S. nuclear energy enterprise is built on a strong foundation:

- reactor designs and operating practices that incorporate a defense-in-depth approach and multiple levels of redundant systems
- a strong, independent regulatory infrastructure
- a transparent regulatory process that provides for public participation in licensing decisions, and
- a continuing and systematic process to identify lessons learned from operating experience and to incorporate those lessons.

4. *How serious are the releases of radiation from Fukushima Daiichi? Do they represent a threat to human health? Will we see an increase in cancer rates in future years?*

As a result of fuel damage in at least four of the Fukushima reactors, significant releases of radioactive materials have been detected at the site. The implications of these releases on the health and safety of the public are not yet fully understood. The Japanese government implemented emergency planning procedures and evacuated residents within a 12.5-mile radius of the plant before the radiation releases were detected. Authorities are also distributing potassium iodide tablets to specifically protect against exposure from radioactive iodine that may be present in the releases and are monitoring the evacuees for potential exposure. Any speculation about possible health effects would be premature until more accurate and complete data becomes available.

5. *How many U.S. reactors use the Mark I containment design used at Fukushima Daiichi Unit 1?*

Six U.S. nuclear reactors (Monticello in Minnesota, Pilgrim in Massachusetts, Dresden 2 and 3 and Quad Cities 1 and 2 in Illinois) are the same base design as the Fukushima Daiichi Unit 1 design (BWR-3 design with Mark I containment). Twenty-three U.S. nuclear plants are boiling water reactors (either BWR-2, BWR-3 or BWR-4) and use the Mark I containment: Browns Ferry 1, 2 and 3; Brunswick 1 and 2; Cooper; Dresden 2 and 3; Duane Arnold; Hatch 1 and 2; Fermi; Hope Creek; Fitzpatrick; Monticello; Nine Mile Point 1; Oyster Creek; Peach Bottom 2 and 3; Pilgrim; Quad Cities 1 and 2; Vermont Yankee. Although these are the same basic reactor design, specific elements of the safety systems will vary based on the requirements of the U.S. NRC.

6. *There have been questions raised in the past about the BWR Mark I containment like that at Fukushima Daiichi. Some critics have pointed to a comment by an NRC official in the early 1980s: "Mark I containment, especially being smaller with lower design pressure, in spite of the suppression pool, if you look at the WASH 1400 safety study, you'll find something like a 90% probability of that containment failing."*

The Mark I containment meets all Nuclear Regulatory Commission design and safety requirements necessary to protect public health and safety. The WASH-1400 safety study referenced was performed in 1975. The Nuclear Regulatory Commission has analyzed the Mark I containment design in great detail since then. The NRC analysis found that the BWR Mark I risk was dominated by two scenarios: station blackout and anticipated transient without scram. The NRC subsequently promulgated regulations for both of these sequences as well as other actions to reduce the probability of containment failure.

GE has made a number of design changes to the Mark I containment to address concerns raised in the past, including modifications to dissipate energy released to the suppression pool and supports to accommodate loads that could be generated. These retrofits were approved by the Nuclear Regulatory Commission and made to all U.S. plants with the Mark I containment.

7. *What happens when you have a complete loss of electrical power to operate pumps in a BWR-3 reactor with Mark I containment like the one at Fukushima Daiichi Unit 1?*

If plant operators cannot move water through the reactor core, the water in the reactor vessel begins to boil and turn to steam, increasing pressure inside the reactor vessel. In order to keep the reactor vessel pressure below design limits, this steam is then piped into what is called a "suppression pool" of water or "torus" – a large doughnut-shaped tank that sits beneath the reactor vessel.

Eventually, the water in the suppression pool reaches "saturation" – i.e., it cannot absorb any additional heat and it, too begins to boil, increasing pressure in containment. In order to stay within design limits for the primary containment, operators reduce pressure by venting steam through filters (to scrub out any radioactive particles) to the atmosphere through the vent stack.

If operators cannot pump additional water into the reactor vessel, the water level will begin to drop, uncovering the fuel rods. If the fuel remains uncovered for an extended period of time, fuel damage, possibly including melting of fuel, may occur. If there is fuel damage, and steam is being vented to the suppression pool, then to primary containment, then to secondary containment (in order to relieve pressure build-up on plant systems), small quantities of radioactive materials will escape to the environment.

8. *Are U.S. emergency planning requirements and practices adequate to deal with a situation like that faced at Fukushima Daiichi?*

Yes. Federal law requires that energy companies develop and perform graded exercises of sophisticated emergency response plans to protect the public in the event of an accident at a nuclear power plant. The U.S. Nuclear Regulatory Commission reviews and approves these plans. In addition, the NRC coordinates approval of these plans with the Federal Emergency Management Agency (FEMA), which has the lead federal role in emergency planning beyond the nuclear plant site. An approved emergency plan is required for the plant to maintain its federal operating license. A nuclear plant's emergency response plan must provide protective measures, such as sheltering and evacuation of communities within a 10-mile radius of the facility. In 2001, the NRC issued new requirements and guidance that focus in part on emergency preparedness at plant sites in response to security threats. The industry has implemented these measures, which address such issues as on-site sheltering and evacuation, public communications, and emergency staffing in the specific context of a security breach. Several communities have used the structure of nuclear plant emergency plans to respond to other types of emergencies. For example, during the 2007 wildfires in California, county emergency officials drew on relationships and communications links they had established during their years of planning for nuclear-related events.

In addition, as part of the emergency plan, nuclear plant operators would also staff Emergency Centers within one hour to provide support to the plant staff during the event. This support would be in the form of:

- Technical expertise (engineering, operations, maintenance and radiological controls)
- Offsite communications and interfaces, (state, local and NRC)
- Security and logistics

9. *Should U.S. nuclear facilities be required to withstand earthquakes and tsunamis of the kind just experienced in Japan? If not, why not?*

U.S. nuclear reactors are designed to withstand an earthquake equal to the most significant historical event or the maximum projected seismic event and associated tsunami without any breach of safety systems.

The lessons learned from events at Fukushima must be reviewed carefully to see whether they apply to U.S. nuclear power plants. It is important not to extrapolate earthquake and tsunami data from one location of the world to another when evaluating these natural hazards, however. These catastrophic natural events are very region- and location-specific, based on tectonic and geological fault line locations.

The U.S. Geological Survey (USGS) conducts continuous research of earthquake history and geology, and publishes updated seismic hazard curves for various regions in the continental US. These curves are updated approximately every six years. NRC identified a generic issue (GI-199) that is currently undergoing an evaluation to assess implications of this new information to nuclear plant sites located in the central and eastern United States. The industry is working with the NRC to develop a methodology for addressing this issue.

10. *Is this accident likely to result in changes to regulatory requirements for U.S. nuclear plants in seismically active areas? Will those regulatory requirements be revisited and made more robust?*

The nuclear energy industry believes that existing seismic design criteria are adequate. Every U.S. nuclear power plant has an in-depth seismic analysis and is designed and constructed to withstand the maximum projected earthquake that could occur in its area without any breach of safety systems. Each reactor is built to withstand the maximum site-specific earthquake by utilizing reinforced concrete and other specialized materials. Each reactor would retain the ability to safely shut down the plant without a release of radiation. Given the seismic history in California, for example, plants in that state are built to withstand an even higher level of seismic activity than plants in many other parts of the country.

Engineers and scientists calculate the potential for earthquake-induced ground motion for a site using a wide range of data and review the impacts of historical earthquakes up to 200 miles away. Those earthquakes within 25 miles are studied in great detail. They use this research to determine the maximum potential earthquake that could affect the site. Each reactor is built to withstand the respective strongest earthquake. Experts identify the potential ground motion for a given site by studying various soil characteristics directly under the plant. For example, a site that features clay over bedrock will respond differently during an earthquake than a hard-rock site. Taking all of these factors into account, experts determine the maximum ground motion the plant must be designed to withstand. As a result, the design requirements for resisting ground motion are greater than indicated by historical records for that site.

It is also important not to extrapolate earthquake and tsunami data from one location of the world to another when evaluating these natural hazards. These catastrophic natural events are very region- and location-specific, based on tectonic and geological fault line locations.

11. *What would happen to the used fuel in the storage pools if cooling was lost?*

We do not know the precise condition of the used fuel storage pools at Fukushima Units 1, 2, 3 and 4.

Used nuclear fuel at the Fukushima Daiichi plant is stored in seven pools (one at each of the six reactors, plus a shared pool) and in a dry container storage facility (containing nine casks). Sixty percent of the used fuel on site is stored in the shared pool, in a building separated from the reactor buildings; 34 percent of the used fuel is distributed between the six reactor fuel storage pools, and the remaining six percent is stored in the nine dry storage containers. The used fuel pools at the Fukushima Daiichi reactors are located at the top of the reactor buildings for ease of handling during refueling operations. There are no safety concerns regarding the used fuel in dry storage at Fukushima Daiichi.

Used fuel pools are robust concrete and steel structures. Pools are designed with systems to maintain the temperature and water levels sufficient to provide cooling and radiation shielding. The water level in a used fuel pool typically is 16 feet or more above the top of the fuel assemblies. The used fuel pools are designed so that the water in the pool cannot drain down as a result of damage to the piping or cooling systems. The only way to rapidly drain down the pool is if there is structural damage to the walls or the floor.

If the cooling systems are unable to function, the heat generated by the used fuel would result in a slow increase in the temperature of the spent fuel pool water. The operating temperature of the pools is typically around 40 degrees C or 100 degrees F (the boiling point for water is 100 C or 212 F).

This slow increase in temperature would result in an increased evaporation rate. Rapid evaporation of the water will not occur.

Exact evaporation rates would depend on the amount of used fuel in the pool and how long it has cooled. The rate at which the pool water level would decrease (due to evaporation or mild boiling) in the absence of cooling system function would not be expected to lower water levels by more than a few percent per day. Given that there is approximately 16 feet or more of water above the used fuel assemblies, operators would have time to find another way to add water to the pools before the fuel would become exposed.

At the surface of the used fuel pool, the dose rate from gamma radiation emanating off the used fuel assemblies is typically less than 2 millirem per hour. If the water level decreases, gamma radiation levels would increase substantially. This increase would be noticed at the radiation monitors near the reactor buildings.

12. *Given that Fukushima Daiichi Unit 1 is a 1970s-vintage plant, do you anticipate increased regulatory requirements and scrutiny on U.S. plants of similar vintage? Do you think the accident will have an impact on license renewal of the older U.S. nuclear power plants?*

The U.S. nuclear energy industry and the Nuclear Regulatory Commission will analyze the events at Fukushima Daiichi, identify lessons learned and incorporate those lessons, as appropriate, into the design and operation of U.S. nuclear power plants.

The U.S. industry routinely incorporates lessons learned from operating experience into its reactor designs and operations. For example, as a result of the 1979 accident at Three Mile Island, the industry learned valuable lessons about hydrogen accumulation inside containment. As an example, after Three Mile Island, many boiling water reactors implemented a modification referred to as a hardened vent or direct vent. This allows the plant to vent primary containment via high pressure piping. This precludes over-pressurization of containment.

13. *Do the events indicate that iodine tablets should be made widely available during an emergency?*

The thyroid gland preferentially absorbs iodine. In doing so it does not differentiate between radioactive and nonradioactive forms of iodine. The ingestion of nonradioactive potassium iodide (KI), if taken within several hours of likely exposure to radioactive iodine, can protect the thyroid gland by blocking further uptake of radioactive forms of iodine. KI does not protect any other part of the body, nor does it protect against any other radioactive element.

The NRC has made available KI tablets to states that have requested it for the population within the 10-mile emergency planning zone (EPZ) of a nuclear reactor. If necessary, KI is to be used to supplement other measures, such as evacuation, sheltering in place, and control of the food supply, not to take the place of these actions. The Environmental Protection Agency and the Food and Drug Administration have published guidance for state emergency responders on the dosage and effectiveness of KI on different segments of the population. According to the EPA guidance, "KI provides optimal protection when administered immediately prior to or in conjunction with passage of a radioactive cloud."

Populations within the 10-mile emergency planning zone of a nuclear plant are at greatest risk of exposure to radiation and radioactive materials including radioactive iodine. Beyond 10 miles, the major risk of radioiodine exposure is from ingestion of contaminated foodstuffs, particularly milk

products. Both the EPA and the FDA have published guidance to protect consumers from contaminated foods within a 50 mile radius.

14. What caused the explosions at Fukushima Daiichi Units 1-3?

The explosions at Units 1, 2 and 3 appear to have been caused by a build-up of hydrogen.

The uranium fuel pellets are enclosed in metal tubes made of a zirconium alloy. When exposed to very high temperatures, the zirconium reacts with water to form zirconium oxide and hydrogen.

This appears to have happened at Fukushima Daiichi Units 1 and 3, when a portion of the uranium fuel was uncovered. It is assumed that the hydrogen found its way into the reactor building, accumulated there, and ignited. Although significant events, the explosions did not appear to compromise the integrity of the primary containments or the reactor vessels at these units.

The explosion in Unit 2 appears to have happened as a result of a similar phenomenon. The hydrogen appears to have ignited inside the reactor. Although a breach in the Unit 2 containment was suspected shortly following the explosion, more recent reports indicate primary containment is maintaining pressure which would indicate integrity has not been compromised.

15. Did the reactor cores melt at any of the Fukushima Daiichi reactors? Was there any fuel damage?

Fukushima Daiichi Units 1, 2, and 3 have experienced some fuel damage, since the fuel rods or portions of the fuel rods were uncovered (not covered with water) for some period of time. There is no evidence of a complete core meltdown at any unit, however. The information we have suggests that the basic core configuration so far remains intact, so some water or steam cooling through the core is occurring.

16. Are there any additional concerns associated with the mixed oxide fuel in Unit 3?

Unit 3 installed some mixed oxide (MOx) fuel assemblies during its last refueling outage in September, 2010. Mixed oxide fuel is a combination of uranium oxide and plutonium oxide, and is not used in the U.S. reactors, except for limited experimental testing. Failure to keep MOx fuel assemblies covered with water – and the resulting overheating and damage to the MOx fuel assemblies, and release of fission products – does not pose an additional threat when compared with the traditional uranium oxide fuel assemblies. The melting point of the MOx fuel assemblies is also similar to uranium oxide fuel assemblies, so the risk of damage due to overheating does not increase with the use of MOX fuel.

17. Do the events indicate that evacuation zones around plants should be extended?

The 10-mile emergency planning zone around nuclear power plants as determined in 1978 by a multi-agency federal task force is appropriate and should not change due to the accident at Fukushima Daiichi. In the United States, a nuclear plant's emergency response plan must provide protective measures, such as sheltering and evacuation of communities within a 10-mile radius of the facility. Japan used a similar plan. During the accident there, the Japanese government has issued evacuation orders for a 20-kilometre (12.5-mile) radius around Fukushima Daiichi, and a 3-kilometre radius around Fukushima Daini.

18. What will be the impact of the Fukushima Daiichi accident on new nuclear plant construction in the United States?

New nuclear power plant construction in the United States is in the early stages and proceeding in a deliberate fashion. There is ample time to incorporate lessons learned from these events during the construction period.

Nuclear energy has been and will continue to be a key element in meeting America's energy needs. The nuclear industry sets the highest standards for safety and, through our focus on continuous learning, we will incorporate lessons learned from the events in Japan into the ongoing process of designing, licensing and building new nuclear power plants.

Two companies have started site preparation and other construction-related activities for new nuclear power plants in Georgia and South Carolina, with the expectation that they will receive their combined construction-operating licenses from the Nuclear Regulatory Commission in late 2011 or early 2012. We expect those new reactor projects to proceed. Both projects use a light water reactor design with advanced safety features – i.e., the reactors rely on natural forces like gravity (rather than engineered safety features like pumps) to deliver water to cool the reactor core.

In addition, a number of companies are moving forward with design, licensing and – at the appropriate time – construction of small modular reactors (SMRs), which also incorporate design features that provide additional safety margin.

Although America's 104 nuclear power plants are safe and meet all requirements necessary to protect public health and safety, these new designs are even safer.

Updated 3.17.2011



NEI Shares Obama Call to Incorporate Safety Lessons From Japan Accident

WASHINGTON, D.C., March 17, 2011—The following is a statement by Marvin S. Fertel, president and chief executive officer at the Nuclear Energy Institute, on President Obama’s remarks today regarding the Fukushima nuclear power plant in Japan.

“We appreciate the President’s leadership during this difficult time for the people of Japan. Like the President, our industry recognizes that there is concern about the accident in Japan and we are providing resources and expertise to the Japanese industry to return the Fukushima plant to a safe condition. This is a very serious matter in Japan, but we echo the assessment of health experts that there is currently no health threat to the United States.

“A review of our nuclear plants is an appropriate step after an event of this scale and we expect that the Nuclear Regulatory Commission will conduct its own assessment. The industry’s highest priority is the safe operation of 104 reactors in 31 states and we will incorporate lessons learned from this accident at American nuclear energy facilities. The commitment, along with the strict regulation of the industry by the Nuclear Regulatory Commission, has made U.S. reactors the safest in the world.

“Even before we can get lessons learned from Japan, all companies that produce electricity at nuclear power plants are verifying their capability to maintain safety even in the face of severe adverse events.”

###

The Nuclear Energy Institute is the nuclear energy industry’s policy organization. This news release and additional information about nuclear energy are available at www.nei.org.



NRC response to MSNBC Seismic Article:

The objective of the GI-199 Safety/Risk Assessment was to perform a conservative, screening-level assessment to evaluate if further investigations of seismic safety for operating reactors in the central and eastern U.S. (CEUS) are warranted consistent with NRC directives. The results of the GI-199 SRA should not be interpreted as definitive estimates of plant-specific seismic risk. The nature of the information used (both seismic hazard data and plant-level fragility information) make these estimates useful only as a screening tool. The NRC does not rank plants by seismic risk.

Operating nuclear plants in the United States remain safe, with no need for immediate action. This determination is based on NRC staff reviews of updated seismic hazard information and the conclusions of the Generic Issue 199 Screening Panel. Existing plants were designed with considerable margin to be able to withstand the ground motions from the “deterministic” or “scenario earthquake” that accounted for the largest earthquake expected in the area around the plant.

During the mid-to late-1990s, the NRC staff reassessed the margin beyond the design basis as part of the Individual Plant Examination of External Events (IPEEE) program. The results of the GI-199 assessment demonstrate that the probability of exceeding the design basis ground motion may have increased at some sites, but only by a relatively small amount. In addition, the Safety/Risk Assessment stage results indicate that the probabilities of seismic core damage are lower than the guidelines for taking immediate action.

Click [here](#) to unsubscribe

From: [Haney, Catherine](#)
To: [Droggitis, Spiros](#)
Subject: RE: Phone Congressional Liaison Team Briefing - Latest schedule
Date: Friday, March 18, 2011 9:55:00 AM

As of right now, I will be out of the country starting Saturday and returning on March 25.

From: Droggitis, Spiros
Sent: Friday, March 18, 2011 9:53 AM
To: Haney, Catherine; Leeds, Eric; Dorman, Dan
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Powell, Amy; Virgilio, Martin; Riley (OCA), Timothy; Belmore, Nancy; Schmidt, Rebecca; Johnson, Michael; Sheron, Brian; Borchardt, Bill
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From: Johnson, Michael
Sent: Thursday, March 17, 2011 2:57 PM

2/124

To: Haney, Catherine; Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
Subject: Re:

I can't support before late afternoon. I am planning on supporting a call at 300 tomorrow.
From my blackberry.

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To: Borchardt, Bill; Schmidt, Rebecca; Sheron, Brian; Leeds, Eric; Johnson, Michael
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan
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Unfortunately this would conflict with the NRC all hands briefing. Can 1 of the 4 "communicators" handle the 11:45?

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Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee
Subject: RE:

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Sent: Thursday, March 17, 2011 10:05 AM
To: Borchardt, Bill; Leeds, Eric; Haney, Catherine; Johnson, Michael
Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc
Subject: RE:

I should be able to attend. I'll meet you in the ops center around 7am.

From: Borchardt, Bill

Sent: Thursday, March 17, 2011 9:44 AM

To: Leeds, Eric; Haney, Catherine; Sheron, Brian; Johnson, Michael

Cc: Weber, Michael; Schmidt, Rebecca; Batkin, Joshua; HOO Hoc

Subject:

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Please let me know whether you plan to attend or not.

Bill

From: [Haney, Catherine](#)
To: [Droggitis, Spiros](#)
Subject: RE: Phone Congressional Liaison Team Briefing - Latest schedule
Date: Friday, March 18, 2011 10:17:00 AM

I think they have bigger plans for Dan right now. I wouldn't count on him to be a communicator right now. I will let you know if something changes.

From: Droggitis, Spiros
Sent: Friday, March 18, 2011 10:17 AM
To: Haney, Catherine
Subject: RE: Phone Congressional Liaison Team Briefing - Latest schedule

Hi Cathy: I understand. Just trying to goose the system a bit. Any indication that they will let Dan do these? Have a safe trip. Spiros

From: Haney, Catherine
Sent: Friday, March 18, 2011 9:55 AM
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From: [Haney, Catherine](#)
To: [Droggitis, Spiros](#); [Schmidt, Rebecca](#); [Weber, Michael](#); [Borchardt, Bill](#); [Virgilio, Martin](#)
Cc: [Dorman, Dan](#)
Subject: RE: Phone Congressional Liaison Team Briefing
Date: Thursday, March 17, 2011 4:16:00 PM

Spiros

I'm headed to France on Saturday and will not return until the 25th.

I know the original intent was to have OD brief but I'd like to offer up Dan in my place. He's been involved in the Ops Center all week so he is well versed on the subject. I'm not sure who needs to approve Dan as a communicator. I'm going to assume it is Mike Weber or Bill Borchardt. Once we get the ok on Dan, we can place his name on the list.

Cathy

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To: Schmidt, Rebecca; Johnson, Michael; Haney, Catherine; Borchardt, Bill; Sheron, Brian; Leeds, Eric
Cc: Weber, Michael; Batkin, Joshua; HOO Hoc; Taylor, Renee; Flory, Shirley; Dorman, Dan; Powell, Amy; Virgilio, Martin; Riley (OCA), Timothy
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Please let me know whether you plan to attend or not.

Bill

From: [Ordaz, Vonna](#)
To: [Bajwa, Chris](#)
Cc: [Haney, Catherine](#); [Walker, Dwight](#); [Dorman, Dan](#)
Subject: Re: NMSS input for Japan response Brief
Date: Friday, March 18, 2011 11:54:52 PM

It works for me and thank you, I received the info you sent to the ops center.

From: Bajwa, Chris
To: Dorman, Dan; Ordaz, Vonna
Cc: Haney, Catherine; Walker, Dwight
Sent: Fri Mar 18 12:53:38 2011
Subject: RE: NMSS input for Japan response Brief

Since Vonna plans to attend, I think we would have the bases covered. I will also attend. Does that work?

Chris

From: Dorman, Dan
Sent: Friday, March 18, 2011 12:41 PM
To: Ordaz, Vonna; Bajwa, Chris
Cc: Haney, Catherine; Walker, Dwight
Subject: RE: NMSS input for Japan response Brief

Change of plans ... I'll be in Japan on Monday.

From: Ordaz, Vonna
Sent: Friday, March 18, 2011 7:29 AM
To: Dorman, Dan; Bajwa, Chris
Cc: Easton, Earl; Garcia-Santos, Norma; Haney, Catherine; Walker, Dwight
Subject: Re: NMSS input for Japan response Brief

Thanks, Dan and Chris. I will be there on Monday for support.

Vonna

From: Dorman, Dan
To: Bajwa, Chris
Cc: Easton, Earl; Garcia-Santos, Norma; Haney, Catherine; Ordaz, Vonna; Walker, Dwight
Sent: Fri Mar 18 06:41:55 2011
Subject: RE: NMSS input for Japan response Brief

I just confirmed the watchbill for next week and I will be in the office all week.

From: Bajwa, Chris
Sent: Friday, March 18, 2011 6:13 AM
To: Dorman, Dan
Cc: Easton, Earl; Garcia-Santos, Norma; Haney, Catherine; Ordaz, Vonna
Subject: RE: NMSS input for Japan response Brief

Dan,

2/125

That sounds like a plan. I will inform Chris Gratton in NRR that you will attend as the NMSS POC unless you are on Duty at the IRC. The briefing is in the Commission hearing room in OWFN.
Chris

From: Dorman, Dan
Sent: Thursday, March 17, 2011 7:12 PM
To: Haney, Catherine; Bajwa, Chris; Ordaz, Vonna
Cc: Easton, Earl
Subject: RE: NMSS input for Japan response Brief

I'll be there unless the watchbill has me in the IRC

From: Haney, Catherine
Sent: Thursday, March 17, 2011 5:38 PM
To: Bajwa, Chris; Ordaz, Vonna
Cc: Easton, Earl; Dorman, Dan
Subject: RE: NMSS input for Japan response Brief

I would expect Dan to be the POC unless he would prefer to defer to someone from SFST.

From: Bajwa, Chris
Sent: Thursday, March 17, 2011 5:20 PM
To: Ordaz, Vonna
Cc: Easton, Earl; Haney, Catherine
Subject: FW: NMSS input for Japan response Brief

Vonna,

Need a call from you on who you would like to attend the Commission Brief on Monday (9:00 AM) to be "point of contact" for NMSS. This is a public meeting that will be televised.

Chris

From: Gratton, Christopher
Sent: Thursday, March 17, 2011 4:29 PM
To: Bajwa, Chris
Subject: RE: NMSS input for Japan response Brief

Thanks Chris. Can I get a name to go with the attendee commitment so I can clue Bill into who it is.....CG

From: Bajwa, Chris
Sent: Thursday, March 17, 2011 4:17 PM
To: Gratton, Christopher
Cc: Easton, Earl; Garcia-Santos, Norma; White, Bernard; Ordaz, Vonna
Subject: NMSS input for Japan response Brief

Chris,

Here is NMSS input for the Commission briefing. Since we did not explicitly discuss dry cask storage in the call, please let me know if this "scratches the itch" for the briefing. We will be sure that a representative from NMSS attends the briefing. The (2) slides are

"talking points" for you to use any way you see fit. The other documents are background information, with information of interest highlighted. The second powerpoint provides background on Japanese dry storage at the Fukushima plant.

Of course, if there are any questions, or additional information needed, let me know.

Chris Bajwa

From: [Ordaz, Vonna](#)
To: [Bajwa, Chris](#)
Cc: [Haney, Catherine](#); [Walker, Dwight](#); [Dorman, Dan](#)
Subject: RE: NMSS input for Japan response Brief
Date: Friday, March 18, 2011 1:35:18 PM

OK, I'll be there.

Chris – I'll be in the Ops Center from 3-11pm tonight. Would you please email the info over to the HOO, so I can get a copy of what you've prepared.

Many thanks,
Vonna

From: Dorman, Dan
Sent: Friday, March 18, 2011 12:58 PM
To: Bajwa, Chris; Ordaz, Vonna
Cc: Haney, Catherine; Walker, Dwight
Subject: RE: NMSS input for Japan response Brief

Sure. Thanks

From: Bajwa, Chris
Sent: Friday, March 18, 2011 12:54 PM
To: Dorman, Dan; Ordaz, Vonna
Cc: Haney, Catherine; Walker, Dwight
Subject: RE: NMSS input for Japan response Brief

Since Vonna plans to attend, I think we would have the bases covered. I will also attend. Does that work?

Chris

From: Dorman, Dan
Sent: Friday, March 18, 2011 12:41 PM
To: Ordaz, Vonna; Bajwa, Chris
Cc: Haney, Catherine; Walker, Dwight
Subject: RE: NMSS input for Japan response Brief

Change of plans ... I'll be in Japan on Monday.

From: Ordaz, Vonna
Sent: Friday, March 18, 2011 7:29 AM
To: Dorman, Dan; Bajwa, Chris
Cc: Easton, Earl; Garcia-Santos, Norma; Haney, Catherine; Walker, Dwight
Subject: Re: NMSS input for Japan response Brief

Thanks, Dan and Chris. I will be there on Monday for support.

Vonna

From: Dorman, Dan

2/126

To: Bajwa, Chris
Cc: Easton, Earl; Garcia-Santos, Norma; Haney, Catherine; Ordaz, Vonna; Walker, Dwight
Sent: Fri Mar 18 06:41:55 2011
Subject: RE: NMSS input for Japan response Brief

I just confirmed the watchbill for next week and I will be in the office all week.

From: Bajwa, Chris
Sent: Friday, March 18, 2011 6:13 AM
To: Dorman, Dan
Cc: Easton, Earl; Garcia-Santos, Norma; Haney, Catherine; Ordaz, Vonna
Subject: RE: NMSS input for Japan response Brief

Dan,

That sounds like a plan. I will inform Chris Gratton in NRR that you will attend as the NMSS POC unless you are on Duty at the IRC. The briefing is in the Commission hearing room in OWFN.
Chris

From: Dorman, Dan
Sent: Thursday, March 17, 2011 7:12 PM
To: Haney, Catherine; Bajwa, Chris; Ordaz, Vonna
Cc: Easton, Earl
Subject: RE: NMSS input for Japan response Brief

I'll be there unless the watchbill has me in the IRC

From: Haney, Catherine
Sent: Thursday, March 17, 2011 5:38 PM
To: Bajwa, Chris; Ordaz, Vonna
Cc: Easton, Earl; Dorman, Dan
Subject: RE: NMSS input for Japan response Brief

I would expect Dan to be the POC unless he would prefer to defer to someone from SFST.

From: Bajwa, Chris
Sent: Thursday, March 17, 2011 5:20 PM
To: Ordaz, Vonna
Cc: Easton, Earl; Haney, Catherine
Subject: FW: NMSS input for Japan response Brief

Vonna,

Need a call from you on who you would like to attend the Commission Brief on Monday (9:00 AM) to be "point of contact" for NMSS. This is a public meeting that will be televised.

Chris

From: Gratton, Christopher
Sent: Thursday, March 17, 2011 4:29 PM
To: Bajwa, Chris
Subject: RE: NMSS input for Japan response Brief

Thanks Chris. Can I get a name to go with the attendee commitment so I can clue Bill into

who it is.....CG

From: Bajwa, Chris
Sent: Thursday, March 17, 2011 4:17 PM
To: Gratton, Christopher
Cc: Easton, Earl; Garcia-Santos, Norma; White, Bernard; Ordaz, Vonna
Subject: NMSS input for Japan response Brief

Chris,

Here is NMSS input for the Commission briefing. Since we did not explicitly discuss dry cask storage in the call, please let me know if this "scratches the itch" for the briefing. We will be sure that a representative from NMSS attends the briefing. The (2) slides are "talking points" for you to use any way you see fit. The other documents are background information, with information of interest highlighted. The second powerpoint provides background on Japanese dry storage at the Fukushima plant.

Of course, if there are any questions, or additional information needed, let me know.

Chris Bajwa

From: [Rodgers, Mary](#)
To: [Doolittle, Elizabeth](#); [Ford, William](#); [Smith, James](#); [Smith, Shawn](#); [White, Bernard](#)
Cc: [Dorman, Dan](#); [Haney, Catherine](#); [Kinneman, John](#); [Kokajko, Lawrence](#); [Ordaz, Vonna](#); [Bailey, Marissa](#); [Davis, Jack](#); [Mohseni, Aby](#); [Tschiltz, Michael](#); [Weaver, Doug](#)
Subject: OEDO Action/NMSS Coord/G20110184--Description of Actions Taken to Ensure ...
Date: Friday, March 18, 2011 8:00:45 AM
Attachments: [ACTION G20110184.msg](#)

Safety Measures of Public Health & the Environment (EDATS: SECY-2011-0148)

Ladies/Gentlemen:

If a response is required on this action, please "cc" me and your Division's Administrative Assistants on response. A ticket will then be created in the tracking systems (NMSS TTS and EDATS), and following NMSS P&P 1-90, "Understanding the Ticket Process (ML093090282)," an email will be sent to the RidsEDOMailCenter.Resource with ADAMS package information.

Mary L. Rodgers, NMSS
FOIA/Records Manager
(301) 492-3246

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

From: Jaegers, Cathy
Sent: Thursday, March 17, 2011 4:02 PM
To: Rihm, Roger
Cc: RidsNsirMailCenter Resource; Wimbush, Andrea; RidsNrrMailCenter Resource; RidsNmssOd Resource; Rodgers, Mary; Walker, Dwight; RidsOgcMailCenter Resource; Remsburg, Kristy; RidsOcaMailCenter Resource; Belmore, Nancy
Subject: ACTION: G20110184

Attached is the action green ticket for OEDO (Rihm) to coordinate with NSIR, NRR and NMSS, if required. The ADAMS version will be sent after DPC processes.

Z/127

Attachment ACTION G20110184.msg (2560 Bytes) cannot be converted to PDF format.

From: [RidsNmssOd Resource](#)
To: [Dorman, Dan](#); [Haney, Catherine](#); [Kinneman, John](#); [Kokajko, Lawrence](#); [Ordaz, Vonna](#); [Doolittle, Elizabeth](#); [Ford, William](#); [Smith, James](#); [Smith, Shawn](#); [White, Bernard](#); [Bailey, Marissa](#); [Davis, Jack](#); [Mohseni, Aby](#); [Tschiltz, Michael](#); [Weaver, Doug](#)
Subject: NMSS Routing: WAIVER OF WORK SCHEDULE AND PAY CAP RULES FOR WORK IN RESPONSE TO THE EVENTS IN JAPAN
Date: Friday, March 18, 2011 2:29:30 PM
Attachments: [Memo re- Waiver of Work Schedule and Pay Cap Rules for Work in Response to the Events in Japan..pdf](#)

From: Khan, Charline
Sent: Thursday, March 17, 2011 7:29 AM
To: [RidsAcraAcnw_MailCTR Resource](#); [RidsAslbpManagement Resource](#); [RidsOgcMailCenter Resource](#); [RidsOcaaMailCenter Resource](#); [RidsOcfoMailCenter Resource](#); [RidsOigMailCenter Resource](#); [RidsOipMailCenter Resource](#); [RidsOcaMailCenter Resource](#); [RidsOpaMail Resource](#); [RidsSecyMailCenter Resource](#); [RidsSecyCorrespondenceMCTR Resource](#); [RidsEdoMailCenter Resource](#); [RidsAdmMailCenter Resource](#); [RidsCsoMailCenter Resource](#); [RidsOeMailCenter Resource](#); [RidsFsmeOd Resource](#); [RidsOiMailCenter Resource](#); [RidsOIS Resource](#); [RidsHrMailCenter Resource](#); [RidsNroOd Resource](#); [RidsNroMailCenter Resource](#); [RidsNmssOd Resource](#); [RidsNrrOd Resource](#); [RidsNrrMailCenter Resource](#); [RidsResOd Resource](#); [RidsResPmdaMail Resource](#); [RidsSbcrMailCenter Resource](#); [RidsNsirOd Resource](#); [RidsNsirMailCenter Resource](#); [RidsRgn1MailCenter Resource](#); [RidsRgn2MailCenter Resource](#); [RidsRgn3MailCenter Resource](#); [RidsRgn4MailCenter Resource](#)
Cc: Davidson, Lawrence; Buchholz, Jeri; Johns, Nancy
Subject: WAIVER OF WORK SCHEDULE AND PAY CAP RULES FOR WORK IN RESPONSE TO THE EVENTS IN JAPAN

MEMORANDUM TO: Those on the Attached List

FROM: Miriam L. Cohen, Director/**RA by J. Buchholz for**
Office of Human Resources

DATED: March 16, 2011

**SUBJECT: WAIVER OF WORK SCHEDULE AND PAY CAP RULES FOR
WORK IN RESPONSE TO THE EVENTS IN JAPAN**

ADAMS Accession No. ML11075A003 refers

NOTE: Electronic distribution only

Charline Khan
Administrative Assistant (Rotation)
U.S. NUCLEAR REGULATORY COMMISSION
Office of Human Resources
P:301-492-2318
Charline.Khan@nrc.gov

2 / 128

March 16, 2011

MEMORANDUM TO: Those on the Attached List

FROM: Miriam L. Cohen, Director/**RA by J. Buchholz for/**
Office of Human Resources

SUBJECT: WAIVER OF WORK SCHEDULE AND PAY CAP RULES FOR
WORK IN RESPONSE TO THE EVENTS IN JAPAN

I have approved a waiver of the U.S. Nuclear Regulatory Commission (NRC) work schedule rules, as well as a waiver of the biweekly cap on combined salary plus premium pay, for NRC employees serving in and supporting the NRC Operations Center, as well as NRC employees working in Japan, in response to the current, serious nuclear power plant issues in that country.

Work Schedule Limitations

NRC permits a variety of types of work schedules, including 5-4/9 compressed work schedules (CWS) and NEWFlex flexible work schedules that include limitations on permissible workdays and working clock hours. Other types of work schedules, including Expanded-Compressed work schedules (E-CWS) in emergency situations, and First-40 work schedules in unusual situations, do not contain such limitations. A summary of work schedule options may be found on the intranet at <http://www.internal.nrc.gov/HR/work-schedule.html>.

I have approved a waiver of limitations on permissible workdays and working clock hours for NRC employees working in response to these events. As a result, employees on 5-4/9 CWS may work weekends, employees on NEWFlex may work Sundays, and employees on both types of work schedules may work any clock hours, as appropriate (an exception to the 11.25 hour maximum limitation on NEWFlex workdays is not possible).

Biweekly Cap

As a matter of Federal-wide law and regulations, employees who are exempt from the Fair Labor Standards Act (most NRC employees are exempt) normally are subject to a biweekly cap on combined salary plus premium pay. This year, the cap is equal to the salary for GG-15 step 10. Premium pay includes the following categories: night premium pay, Sunday premium pay, holiday premium pay, overtime premium pay, and "regular" compensatory time off (not religious compensatory time off or Special Compensatory Time Off for Travel).

For further details, please see the February 3, 2011, NRC Announcement entitled "Employee Resources: 2011 Cap on Combined Salary Plus Premium Pay," available on the intranet at <http://www.internal.nrc.gov/announcements/items/7625.html>.

Annual Cap

Federal law and regulations permit agencies to waive the biweekly cap and to adopt an annual cap on combined salary plus premium pay when, among other reasons, an employee receives premium pay for work directly related to resolving or coping with an emergency (or its immediate aftermath) that involves a direct threat to life or property.

I have approved a waiver of the biweekly cap and adoption of an annual cap for NRC employees working in response to these events.

Procedures

Note that employees who are responding to these events will be provided a document summarizing their work schedule options as well as their entitlements to premium pay.

Employees should consult with their time and attendance officials about any necessary changes to their Human Resources Management System workgroups.

Management should advise Jackie Jones, Financial Services Branch, Office of the Chief Financial Officer, of the names of employees who perform emergency-related premium work as well as the dates of such work. Please submit this information to Ms. Jones via a memorandum mailed to T-9 E2, or via e-mail to Jackie.Jones@nrc.gov. It is important to provide Ms. Jones this information as soon as practicable after the work begins to avoid difficulties processing the appropriate payments as the annual cap will be made effective at the beginning of the pay period in which the work was performed.

Should you have any questions on this matter, please contact me or have a member of your staff contact Larry Davidson at (301) 492-2286 or Lawrence.davidson@nrc.gov.

MEMORANDUM TO THOSE ON THE ATTACHED LIST DATED: March 16, 2011

SUBJECT: WAIVER OF WORK SCHEDULE AND PAY CAP RULES FOR WORK
IN RESPONSE TO THE EVENTS IN JAPAN

Edwin M. Hackett, Executive Director, Advisory Committee on Reactor Safeguards	RidsAcrsAcnw_MailCTR Resource
E. Roy Hawkens, Chief Administrative Judge, Atomic Safety and Licensing Board Panel	RidsAslbpManagement Resource
Stephen G. Burns, General Counsel	RidsOgcMailCenter Resource
Brooke D. Poole, Director, Office of Commission Appellate Adjudication	RidsOcaaMailCenter Resource
James E. Dyer, Chief Financial Officer	RidsOcfoMailCenter Resource
Hubert T. Bell, Inspector General	RidsOigMailCenter Resource
Margaret M. Doane, Director, Office of International Programs	RidsOipMailCenter Resource
Rebecca L. Schmidt, Director, Office of Congressional Affairs	RidsOcaMailCenter Resource
Eliot B. Brenner, Director, Office of Public Affairs	RidsOpaMail Resource
Annette Vietti-Cook, Secretary of the Commission	RidsSecyMailCenter Resource RidsSecyCorrespondenceMCTR Resource
R. William Borchardt, Executive Director for Operations	RidsEdoMailCenter Resource
Michael F. Weber, Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs, OEDO	RidsEdoMailCenter Resource
Darren B. Ash, Deputy Executive Director for Corporate Management, OEDO	RidsEdoMailCenter Resource
Martin J. Virgilio, Deputy Executive Director for Reactor and Preparedness Programs, OEDO	RidsEdoMailCenter Resource
Mary C. Muessle, Acting Assistant for Operations, OEDO	RidsEdoMailCenter Resource
Kathryn O. Greene, Director, Office of Administration	RidsAdmMailCenter Resource
Patrick D. Howard, Director, Computer Security Office	RidsCsoMailCenter Resource
Roy P. Zimmerman, Director, Office of Enforcement	RidsOeMailCenter Resource
Charles L. Miller, Director, Office of Federal and State Materials and Environmental Management Programs	RidsFsmeOd Resource
Cheryl L. McCrary, Director, Office of Investigations	RidsOiMailCenter Resource
Thomas M. Boyce, Director, Office of Information Services	RidsOis Resource
Miriam L. Cohen, Director, Office of Human Resources	RidsHRMailCenter Resource
Michael R. Johnson, Director, Office of New Reactors	RidsNroOd Resource RidsNroMailCenter Resource RidsNmssOd Resource
Catherine Haney, Director, Office of Nuclear Material Safety and Safeguards	
Eric J. Leeds, Director, Office of Nuclear Reactor Regulation	RidsNrrOd Resource RidsNrrMailCenter Resource
Brian W. Sheron, Director, Office of Nuclear Regulatory Research	RidsResOd Resource RidsResPmdaMail Resource
Corenthis B. Kelley, Director, Office of Small Business and Civil Rights	RidsSbcrMailCenter Resource
James T. Wiggins, Director, Office of Nuclear Security and Incident Response	RidsNsirOd Resource RidsNsirMailCenter Resource
William M. Dean, Regional Administrator, Region I	RidsRgn1MailCenter Resource
Victor M. McCree, Regional Administrator, Region II	RidsRgn2MailCenter Resource
Mark A. Satorius, Regional Administrator, Region III	RidsRgn3MailCenter Resource
Elmo E. Collins, Jr., Regional Administrator, Region IV	RidsRgn4MailCenter Resource

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DISTRIBUTION:

HR r/f

DIRECTORY/SUBDIRECTORY: G:\HRPP\PAY

DOCUMENT NAME: Waiver of Biweekly Cap for Japan Response.docx

WITS/EDO/HR TICKET NO. :

SUBJECT FILE FOLDER NAME:

ADAMS ACCESSION NUMBER: ML11075A003

Publicly Available Non-Publicly Available Sensitive Non-Sensitive

OFFICE	HR/HRPP	HR/HRPP	HR/HROP	HR/ODD	HR/OD
NAME	LDavidson	NJohns LDavidson for	JBuchholz	GTracy JBuchholz for	MCohen JBuchholz for
DATE	3/16/2011	3/16/2011	3/16/2011	3/16/2011	3/16/2011

OFFICIAL RECORD COPY

Attachment NRC_5.joboptions (13738 Bytes) cannot be converted to PDF format.

Weber, Michael

From: Weber, Michael
Sent: Friday, March 18, 2011 6:35 PM
To: Leeds, Eric
Subject: Response - Press Release for Information Notice

Thanks. I understand Dan is planning to travel to Japan tomorrow. Michele is working the rest of the team (specific list) with Dan and Chuck and the ET.

From: Leeds, Eric
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael
Cc: Grobe, Jack; Boger, Bruce; LIA04 Hoc; Brenner, Eliot; Hayden, Elizabeth
Sent: Fri Mar 18 17:55:41 2011
Subject: FYI: Press Release for Information Notice

Our first communication to the industry on the Fukushima event has been issued and is public, along with the OPA press release. FYI

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

From: McGinty, Tim
Sent: Friday, March 18, 2011 5:17 PM
To: Leeds, Eric; Boger, Bruce; Howe, Allen
Subject: FW: Press Release for Information Notice

The Information Notice is publically available (on the Generic Communications part of the NRC public website), has been declared in ADAMS, and OPA is going to issue a press release. FYI. Tim

From: Bowman, Eric
Sent: Friday, March 18, 2011 4:56 PM
To: Taylor, Robert; Rosenberg, Stacey
Cc: McGinty, Tim; Burnell, Scott; Akstulewicz, Brenda
Subject: RE: Press Release for Information Notice

It's just been declared and is going on the internet site now.

Thanks!

Eric

From: Taylor, Robert
Sent: Friday, March 18, 2011 4:44 PM
To: Rosenberg, Stacey; Bowman, Eric
Subject: RE: Press Release for Information Notice

Any word on the IN status?

From: Rosenberg, Stacey
Sent: Friday, March 18, 2011 3:30 PM
To: Taylor, Robert
Subject: RE: Press Release for Information Notice

Thanks so much Rob!!

From: Taylor, Robert
Sent: Friday, March 18, 2011 3:27 PM
To: Bowman, Eric
Cc: Rosenberg, Stacey; McGinty, Tim; Burnell, Scott; Akstulewicz, Brenda
Subject: FW: Press Release for Information Notice
Importance: High

Eric,

You are a go for issuing the IN. Please reply to all when the IN is out to let us know we can go with the press release. Thanks for your patience.

Regards,
Rob

From: Burnell, Scott
Sent: Friday, March 18, 2011 3:24 PM
To: Taylor, Robert; Brenner, Eliot; Akstulewicz, Brenda
Subject: FW: Press Release for Information Notice
Importance: High

Rob;

We're good with ET approval, so tell NRR to push its buttons.

Brenda, please make this final and we'll wait for Rob to tell us NRR has sent the IN out. Thanks.

Scott

From: Taylor, Robert
Sent: Friday, March 18, 2011 2:04 PM
To: Brenner, Eliot
Cc: Burnell, Scott
Subject: Press Release for Information Notice

Eliot,

Attached in the press release Scott drafted last night. It has been blessed by Ops Center ET and is ready for the next step (your review?). NRR is still driving to issue the IN today.

Regards,
Rob

Andersen, James

From: Andersen, James
Sent: Friday, March 18, 2011 6:19 PM
To: Bates, Andrew; Laufer, Richard; Bovol, Rochelle; Vietti-Cook, Annette
Subject: FW: Support and Logistics for the Japan Commission Meeting

First change.

From: Grobe, Jack
Sent: Friday, March 18, 2011 6:18 PM
To: Sheron, Brian; Uhle, Jennifer; Wiggins, Jim; Evans, Michele; Miller, Charles; Haney, Catherine; Dorman, Dan; Moore, Scott; Johnson, Michael; Holahan, Gary; Leeds, Eric; Boger, Bruce; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Hackett, Edwin; Piccone, Josephine; Wilson, George; Harrison, Donnie; Kammerer, Annie; Collins, Timothy; Milligan, Patricia; Salley, MarkHenry; Bowman, Eric
Cc: Borchardt, Bill; Weber, Michael; Virgilio, Martin; Ash, Darren; Burns, Stephen; Vietti-Cook, Annette; Andersen, James; Giitter, Joseph; Howe, Allen; Nelson, Robert; McGinty, Tim; Blount, Tom; Holian, Brian; Gallagher, Johanna; Cheok, Michael; Lee, Samson; Hiland, Patrick; Skeen, David; Ruland, William; Lubinski, John
Subject: Re: Support and Logistics for the Japan Commission Meeting

Oops - I made a mistake. Cathy Haney will be in France so Trish Milligan should also be expected to cover Radiological Consequence Assessment as well as Emergency Preparedness. Thanks.
Jack Grobe, Deputy Director, NRR

From: Grobe, Jack
To: Sheron, Brian; Uhle, Jennifer; Wiggins, Jim; Evans, Michele; Miller, Charles; Haney, Catherine; Dorman, Dan; Moore, Scott; Johnson, Michael; Holahan, Gary; Leeds, Eric; Grobe, Jack; Boger, Bruce; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Hackett, Edwin; Piccone, Josephine; Wilson, George; Harrison, Donnie; Kammerer, Annie; Collins, Timothy; Milligan, Patricia; Salley, MarkHenry; Bowman, Eric
Cc: Borchardt, Bill; Weber, Michael; Virgilio, Martin; Ash, Darren; Burns, Stephen; Vietti-Cook, Annette; Andersen, James; Giitter, Joseph; Howe, Allen; Nelson, Robert; McGinty, Tim; Blount, Tom; Holian, Brian; Gallagher, Johanna; Brown, Milton; Cheok, Michael; Lee, Samson; Hiland, Patrick; Skeen, David; Ruland, William; Sheron, Brian; Lubinski, John
Sent: Fri Mar 18 18:06:05 2011
Subject: Support and Logistics for the Japan Commission Meeting

Ladies and Gents,

We want to ask your support for several aspects of the Commission meeting on Monday morning regarding the situation in Japan.

First, the only staff at the Commission table will be Bill Borchardt.

In the well, we anticipate having the two available DEDOs (I understand that Mike Weber will be on shift) and one representative from the front office of each of the following offices (either the office director or deputy)

NRR, NRO, NSIR, RES, NMSS, FSME, OPA, OCA, OIP, CFO, ACRS

Annette Vietti-Cook has indicated that she will reserve the "quadrant" of seats nearest the microphone (on the left side of the room as the Commissioners would see it) for NRC staff. As I understand it, the right side will be for reporters and the central area will be open for general public.

In the area for NRC staff, there will be 39 seats.

From a staff perspective, we would like the highest priority available for the following individuals whom Bill will call upon to answer (on camera) any more detailed questions on the indicated subjects. Bill will have the list and ask for this person to respond to any question where he wants more detailed support. Some of these folks will likely already be in the well. The microphone has been moved to allow television camera access to any individual answering questions.

Protection Against Natural Disasters – Gary Holahan
Station Blackout – George Wilson
Severe Accident and Spent Fuel Pool Accident Progression – Jennifer Uhle
Radiological Consequence Analysis – Cathy Haney
Hydrogen Fires and Explosions – MarkHenry Salley
Public Stakeholder Outreach – Eliot Brenner
State Outreach – Josie Piccone
International Interactions – Margie Doane
10CFR50.54(hh)(2)/B.5.b – Eric Bowman
Seismic Issues, Tsunami Issues, GI-199 – Annie Kammerer
Mark I containment issues – Tim Collins
Emergency Preparedness – Trish Milligan
Emergency Operating procedures/SAMGs – Donnie Harrison

We understand that these people are available for the meeting. If not, please coordinate with Allen Howe to provide an equivalently capable individual.

That leaves 26 seats in the staff section for TAs and other Division Directors and above who should attend the meeting.

SECY is arranging for an e-mail to be sent out to the staff to indicate where televisions are available for other interested staff to observe the Commission meeting.

Thanks for your support.

Jack Grobe, Deputy Director
for Engineering and Corporate Support
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Andersen, James

From: Andersen, James
Sent: Friday, March 18, 2011 6:10 PM
To: Bavol, Rochelle; Laufer, Richard; Bates, Andrew; Vietti-Cook, Annette
Subject: FW: Support and Logistics for the Japan Commission Meeting

For your use in setting up the Commission Hearing Room.

Jim A.

From: Grobe, Jack
Sent: Friday, March 18, 2011 6:06 PM
To: Sheron, Brian; Uhle, Jennifer; Wiggins, Jim; Evans, Michele; Miller, Charles; Haney, Catherine; Dorman, Dan; Moore, Scott; Johnson, Michael; Holahan, Gary; Leeds, Eric; Grobe, Jack; Boger, Bruce; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Doane, Margaret; Mamish, Nader; Dyer, Jim; Brown, Milton; Hackett, Edwin; Piccone, Josephine; Wilson, George; Harrison, Donnie; Kammerer, Annie; Collins, Timothy; Milligan, Patricia; Salley, MarkHenry; Bowman, Eric
Cc: Borchardt, Bill; Weber, Michael; Virgilio, Martin; Ash, Darren; Burns, Stephen; Vietti-Cook, Annette; Andersen, James; Gitter, Joseph; Howe, Allen; Nelson, Robert; McGinty, Tim; Blount, Tom; Holian, Brian; Gallagher, Johanna; Brown, Milton; Cheok, Michael; Lee, Samson; Hiland, Patrick; Skeen, David; Ruland, William; Sheron, Brian; Lubinski, John
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Emergency Operating procedures/SAMGs – Donnie Harrison

We understand that these people are available for the meeting. If not, please coordinate with Allen Howe to provide an equivalently capable individual.

That leaves 26 seats in the staff section for TAs and other Division Directors and above who should attend the meeting.

SECY is arranging for an e-mail to be sent out to the staff to indicate where televisions are available for other interested staff to observe the Commission meeting.

Thanks for your support.

Jack Grobe, Deputy Director
for Engineering and Corporate Support
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Andersen, James

From: Andersen, James
Sent: Friday, March 18, 2011 6:03 PM
To: Blake, Kathleen
Subject: RE: Materials for March 21st Commission Briefing on Japan Event

I'm hoping to get the okay shortly.

Jim A.

From: Blake, Kathleen
Sent: Friday, March 18, 2011 6:02 PM
To: Andersen, James
Subject: FW: Materials for March 21st Commission Briefing on Japan Event

Jim: Were you sending the slides tonight? kb

Kathleen M. Blake

Administrative Assistant
to Commissioner Apostolakis
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852
301-415-1810

From: Laufer, Richard
Sent: Friday, March 18, 2011 4:46 PM
To: Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffrey; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth
Cc: Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Andersen, James; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca
Subject: Materials for March 21st Commission Briefing on Japan Event

Attached is the final scheduling note for the March 21st Commission briefing on the Japan Event. Staff slides should be emailed later today by Jim Andersen (OEDO).

Note that Commissioner Magwood goes first with questions.

Below are a few meeting logistics for your information:

- Bill Borchardt will be the only NRC staff member at the table.
- The seats in the well are reserved for DEDOs / Office Directors
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- The remaining stadium seats in front of the Commissioners will be open to the public.

Once the available public seats are filled, members of the public will be directed around the back of the building where they will enter the TWFN Auditorium to view the Commission meeting.

Thanks,
Rich

Taylor, Renee

From: Borchardt, Bill
Sent: Friday, March 18, 2011 6:02 PM
To: Leeds, Eric
Subject: RE: Press Release for Information Notice

Thanks Eric

From: Leeds, Eric
Sent: Friday, March 18, 2011 5:56 PM
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael
Cc: Grobe, Jack; Boger, Bruce; LIA04 Hoc; Brenner, Eliot; Hayden, Elizabeth
Subject: FYI: Press Release for Information Notice

Our first communication to the industry on the Fukushima event has been issued and is public, along with the OPA press release. FYI

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

From: McGinty, Tim
Sent: Friday, March 18, 2011 5:17 PM
To: Leeds, Eric; Boger, Bruce; Howe, Allen
Subject: FW: Press Release for Information Notice

The Information Notice is publically available (on the Generic Communications part of the NRC public website), has been declared in ADAMS, and OPA is going to issue a press release. FYI. Tim

From: Bowman, Eric
Sent: Friday, March 18, 2011 4:56 PM
To: Taylor, Robert; Rosenberg, Stacey
Cc: McGinty, Tim; Burnell, Scott; Akstulewicz, Brenda
Subject: RE: Press Release for Information Notice

It's just been declared and is going on the internet site now.

Thanks!

Eric

From: Taylor, Robert
Sent: Friday, March 18, 2011 4:44 PM
To: Rosenberg, Stacey; Bowman, Eric
Subject: RE: Press Release for Information Notice

Any word on the IN status?

From: Rosenberg, Stacey
Sent: Friday, March 18, 2011 3:30 PM

Z/133

To: Taylor, Robert
Subject: RE: Press Release for Information Notice

Thanks so much Rob!!

From: Taylor, Robert
Sent: Friday, March 18, 2011 3:27 PM
To: Bowman, Eric
Cc: Rosenberg, Stacey; McGinty, Tim; Burnell, Scott; Akstulewicz, Brenda
Subject: FW: Press Release for Information Notice
Importance: High

Eric,

You are a go for issuing the IN. Please reply to all when the IN is out to let us know we can go with the press release. Thanks for your patience.

Regards,
Rob

From: Burnell, Scott
Sent: Friday, March 18, 2011 3:24 PM
To: Taylor, Robert; Brenner, Eliot; Akstulewicz, Brenda
Subject: FW: Press Release for Information Notice
Importance: High

Rob;

We're good with ET approval, so tell NRR to push its buttons.

Brenda, please make this final and we'll wait for Rob to tell us NRR has sent the IN out. Thanks.

Scott

From: Taylor, Robert
Sent: Friday, March 18, 2011 2:04 PM
To: Brenner, Eliot
Cc: Burnell, Scott
Subject: Press Release for Information Notice

Eliot,

Attached in the press release Scott drafted last night. It has been blessed by Ops Center ET and is ready for the next step (your review?). NRR is still driving to issue the IN today.

Regards,
Rob

Andersen, James

From: Howe, Allen
Sent: Friday, March 18, 2011 5:57 PM
To: Andersen, James
Subject: FW: BRIAN SHERON'S COMMENTS ON JAPAN COMM BRIEF PRESENTATION

From: Scott, Michael
Sent: Friday, March 18, 2011 5:53 PM
To: Howe, Allen; Gratton, Christopher; Leeds, Eric
Cc: Sheron, Brian; Gibson, Kathy; Uhle, Jennifer
Subject: BRIAN SHERON'S COMMENTS ON JAPAN COMM BRIEF PRESENTATION

Brian has been downtown and just now saw the slides. He had a couple of comments.

1. Slide 4 talking points discuss our collaboration with other Federal agencies, but bullets do not refer to those stakeholders in particular. This was similar to a comment made during today's dry run. Please ensure that collaboration and the role of other agencies are highlighted in the presentation.
2. Please consider the following in case the question arises: NRC has issued an IN for reactors regarding the Japan events. Begs the question: What about nonreactor facilities – lessons learned or impacts there?

Thanks

Andersen, James

From: Howe, Allen
Sent: Friday, March 18, 2011 5:50 PM
To: Andersen, James
Cc: Gratton, Christopher; Grobe, Jack
Subject: RE: Materials for March 21st Commission Briefing on Japan Event

Jim – Jack Grobe has the list. He is working an email to the Office Directors and Deputy Directors, those on the list and, of course, you.

Thanks - Allen

From: Andersen, James
Sent: Friday, March 18, 2011 4:57 PM
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Ash, Darren; Muessle, Mary; Landau, Mindy; Leeds, Eric; Grobe, Jack; Howe, Allen; Gratton, Christopher; Boska, John
Subject: FW: Materials for March 21st Commission Briefing on Japan Event

FYI.

Allen, once you are finished identifying the technical staff who will be available to answer specific technical questions, can you please forward the list to me. I need to provide it to SECY so they know who to hold seats for. I assume the seats in the well will be for Darren, Marty, NRR, NRO, RES, NSIR, OIP, CFO. Anyone else?

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To: Bovol, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffrey; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth
Cc: Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Andersen, James; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca
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↳ Some of the stadium seating in front of the Commissioners will be reserved for VIPs (Congressional Office staffers).

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Thanks,
Rich

Taylor, Renee

From: Borchardt, Bill
Sent: Friday, March 18, 2011 5:46 PM
To: Wiggins, Jim
Subject: Re: I need that info now please

Mission accomplished.
Bill Borchardt
Via blackberry

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

From: Wiggins, Jim
To: Borchardt, Bill
Sent: Fri Mar 18 17:37:44 2011
Subject: RE: I need that info now please

Didn't see this until 5:35. Bruce Boger had the watch by then. Hope it got thru.

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

From: Borchardt, Bill
Sent: Friday, March 18, 2011 4:36 PM
To: Batkin, Joshua; HOO Hoc; Wiggins, Jim; Miller, Charles
Subject: Re: I need that info now please

Don't have electronic version.
Can ops ctr help?
Bill Borchardt
Via blackberry

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

From: Batkin, Joshua
To: Borchardt, Bill
Sent: Fri Mar 18 16:33:35 2011
Subject: Re: I need that info now please

Email me please asap

Joshua C. Batkin
Chief of Staff
Chairman Gregory B. Jaczko
(301) 415-1820

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

From: Borchardt, Bill
To: Batkin, Joshua
Sent: Fri Mar 18 16:32:44 2011
Subject: Re: I need that info now please

I have it in hand but we're probably 15 min away (min). The ops ctr tells me that the written list of materials for Bechtel approach has been discussed but not shared in Japan.
Bill Borchardt
Via blackberry

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

From: Batkin, Joshua

To: Wiggins, Jim; Borchardt, Bill; Coggins, Angela; HOO Hoc

Sent: Fri Mar 18 16:28:55 2011

Subject: I need that info now please

Joshua C. Batkin

Chief of Staff

Chairman Gregory B. Jaczko

(301) 415-1820

Weber, Michael

From: Weber, Michael
Sent: Friday, March 18, 2011 5:10 PM
To: Hayden, Elizabeth
Cc: Sheron, Brian; Leeds, Eric; Case, Michael; Bowman, Gregory; Landau, Mindy
Subject: RESPONSE - Fact Sheet on NRC Seismic Regulation

They were prepared by RES with input from NRR, I think. Brian? Eric?

From: Hayden, Elizabeth
Sent: Friday, March 18, 2011 5:07 PM
To: Weber, Michael; LIA05 Hoc; RST01 Hoc
Cc: Bowman, Gregory; Wittick, Brian; Virgilio, Martin; Johnson, Michael; Brenner, Eliot; McIntyre, David; Burnell, Scott; OST02 HOC
Subject: RE: FYI - Fact Sheet on NRC Seismic Regulation

Where did these documents come from? The Fact Sheet is different from the one on our external website. Can these documents be posted to the Website under a special Key Topic we're creating to pull all relevant information into one area on the web?

Beth Hayden
Senior Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment
301-415-8202
elizabeth.hayden@nrc.gov

From: Weber, Michael
Sent: Friday, March 18, 2011 4:55 PM
To: LIA05 Hoc; RST01 Hoc
Cc: Bowman, Gregory; Wittick, Brian; Virgilio, Martin; Johnson, Michael; Brenner, Eliot; Hayden, Elizabeth; McIntyre, David; Burnell, Scott; OST02 HOC
Subject: FYI - Fact Sheet on NRC Seismic Regulation

Provided the attached to DOE in response to a request from the Secretary of Energy.

From: Case, Michael
To: peter.lyons@nuclear.energy.gov <peter.lyons@nuclear.energy.gov>
Cc: Sheron, Brian; Uhle, Jennifer; Munson, Clifford; Kammerer, Annie; Khanna, Meena; Chokshi, Nilesh; Wilson, George
Sent: Fri Mar 18 13:30:51 2011
Subject: Fact Sheet on NRC Seismic Regulation

Dr. Lyons:

Per your discussions with Brian, please find attached a one-page fact sheet on the NRC's Seismic Regulations (same information, one narrative, one bulletized).

Taylor, Renee

From: Borchardt, Bill
Sent: Friday, March 18, 2011 4:30 PM
To: Helton, Shana
Subject: Re: Suggestion re: NRC Press Release on Fukushima

Thanks. I appreciate your thoughts.
Bill Borchardt
Via blackberry

From: Helton, Shana
To: Borchardt, Bill
Cc: Harrington, Holly
Sent: Fri Mar 18 16:25:47 2011
Subject: Suggestion re: NRC Press Release on Fukushima

Bill,

You gave an incredibly good presentation today at the NRC All-Hands meeting. I can't imagine the stress nor the lack of sleep you are enduring, and in case not many others are saying it to you right now: thank you, sincerely, for what you are doing for the NRC and the country. Your speech regarding various points of why you feel very comfortable with the U.S. fleet of operating nuclear reactors (e.g., inerting, design upgrades, B5B enhancements, a nationwide INPO inventory of spare parts) was especially outstanding. **This type of information would make for a great press release.**

Given the extraordinary amount of misinformation and sensationalism that is all over the internet and TV, as you're painfully aware, the NRC has a huge challenge right now of communicating why the NRC is assured that we are continuing to be successful in fulfilling our mission of ensuring adequate protection of public health and safety, promoting the common defense and security, and protecting the environment.

As an aside, in case you're not already aware of it the NRC developed, in 2003, NUREG/BR-0308, "Effective Risk Communication – The Nuclear Regulatory Commission's Guidelines for External Risk Communication." Understanding we're in crisis management mode here, but I'm bringing it to your attention in case it can be of use (and hopefully make your life a little easier right now). Here's a link to the associated Quick Reference Guide: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0308/quick-ref-guide.pdf>.

Thank you for considering these things, especially a well-placed press release, and once again, thank you for everything you are doing. (And sorry for contributing to your surmounting email management challenge.)

-Shana

Shana Helton, Chief
Rulemaking Branch (PRMB)
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-7198; shana.helton@nrc.gov

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Weber, Michael

From: Weber, Michael
Sent: Friday, March 18, 2011 5:01 PM
To: Sheron, Brian
Subject: RESPONSE - Fact Sheet on NRC Seismic Regulation

Thanks. Glad to see that there is alignment

From: Sheron, Brian
Sent: Friday, March 18, 2011 5:00 PM
To: Weber, Michael
Subject: RE: RESPONSE - Fact Sheet on NRC Seismic Regulation

BTW, I called John Kelly at DOE (deputy Assistant Secretary for Nuclear) and told him we sent this to Pete, in case Pete hasn't gotten to his e-mails yet). I also told him that we didn't necessarily agree with his greybeard's potifications about the risks of putting water on a damaged core that has seawater salt on it. I said that we were up to our necks in more important work, and thus I did not want to engage Budnitz or Petersen in an e-mail debate that was academic and of no real value.

John agreed, and admitted that this is what happens when you let greybeards with no defined role to play, loose. He said he will ride herd on them.

From: Weber, Michael
Sent: Friday, March 18, 2011 4:53 PM
To: Sheron, Brian
Subject: RESPONSE - Fact Sheet on NRC Seismic Regulation

Thanks, Brian.

From: Sheron, Brian
Sent: Friday, March 18, 2011 2:10 PM
To: Weber, Michael; Virgilio, Martin; Leeds, Eric
Subject: Fw: Fact Sheet on NRC Seismic Regulation

FYI.

From: Case, Michael
To: peter.lyons@nuclear.energy.gov <peter.lyons@nuclear.energy.gov>
Cc: Sheron, Brian; Uhle, Jennifer; Munson, Clifford; Kammerer, Annie; Khanna, Meena; Chokshi, Nilesh; Wilson, George
Sent: Fri Mar 18 13:30:51 2011
Subject: Fact Sheet on NRC Seismic Regulation

Dr. Lyons:

Per your discussions with Brian, please find attached a one-page fact sheet on the NRC's Seismic Regulations (same information, one narrative, one bulletized).

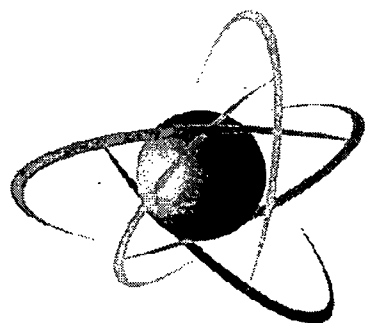
2/139

Ellmers, Glenn

From: Ellmers, Glenn
Sent: Friday, March 18, 2011 10:19 AM
To: Wyatt, Melissa
Subject: slides
Attachments: Fukushima Presentation.pptx

Glenn Ellmers
Senior Communications Specialist, OEDO
301-415-0442
OWFN - 17F03
Mail stop: 016E15

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U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Events at Fukushima Units 1-4

March 18, 2011

Credit: Bill Dean and Rich Barkley, RI

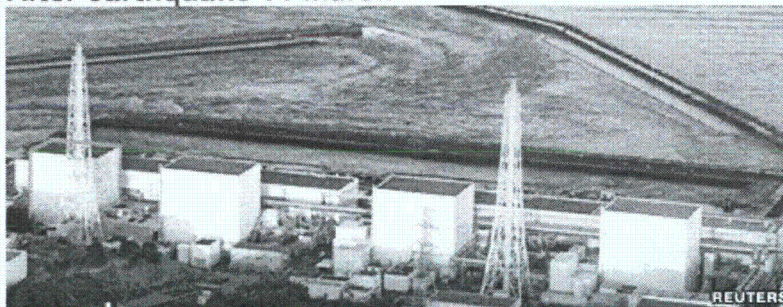
Fukushima Units 1 - 4





3/11 Earthquake & 3/12 Unit 1 Hydrogen Explosion

After earthquake 11 March



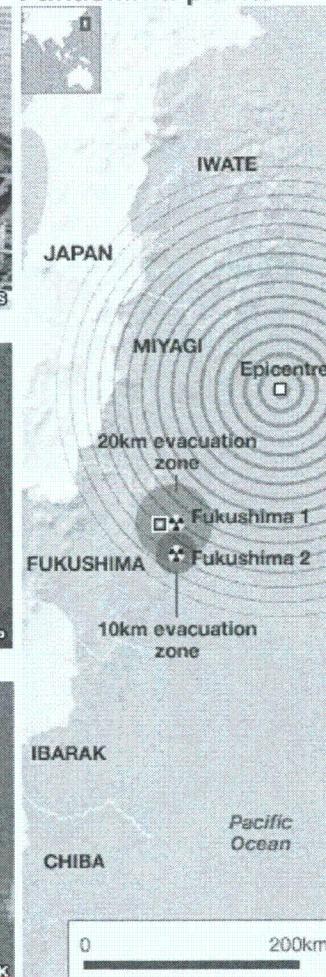
Explosion 0630 GMT 12 March



After explosion 0730 GMT



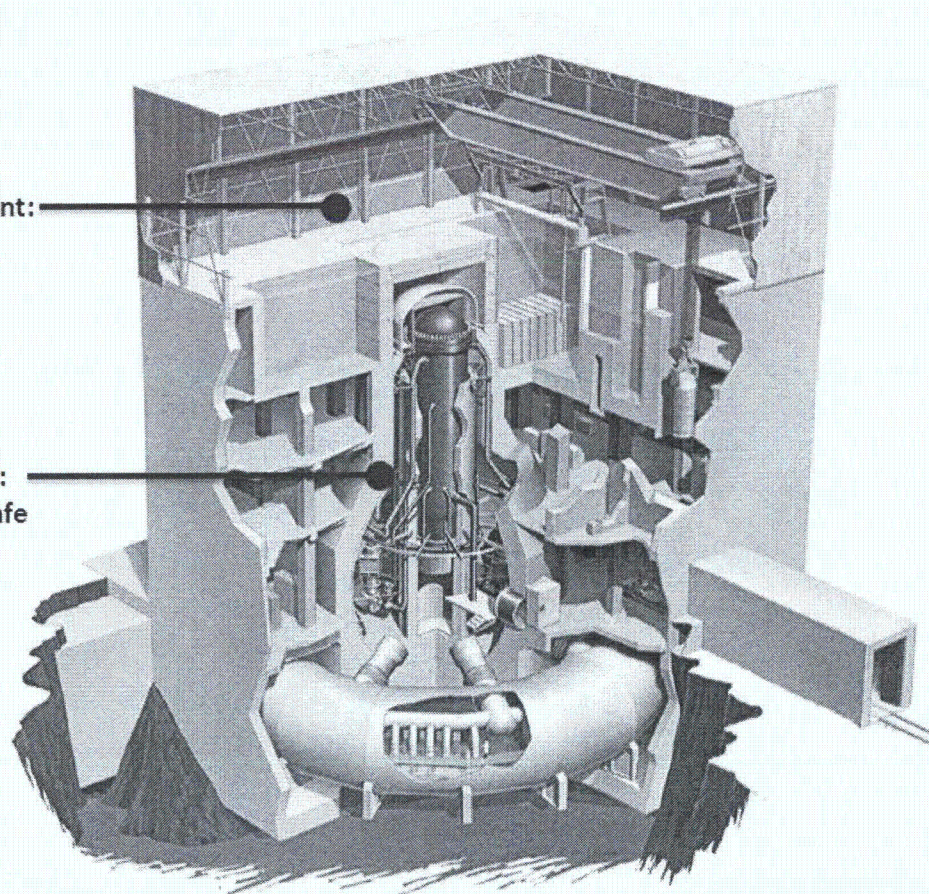
Fukushima plants



BWR with Mark 1 Containment

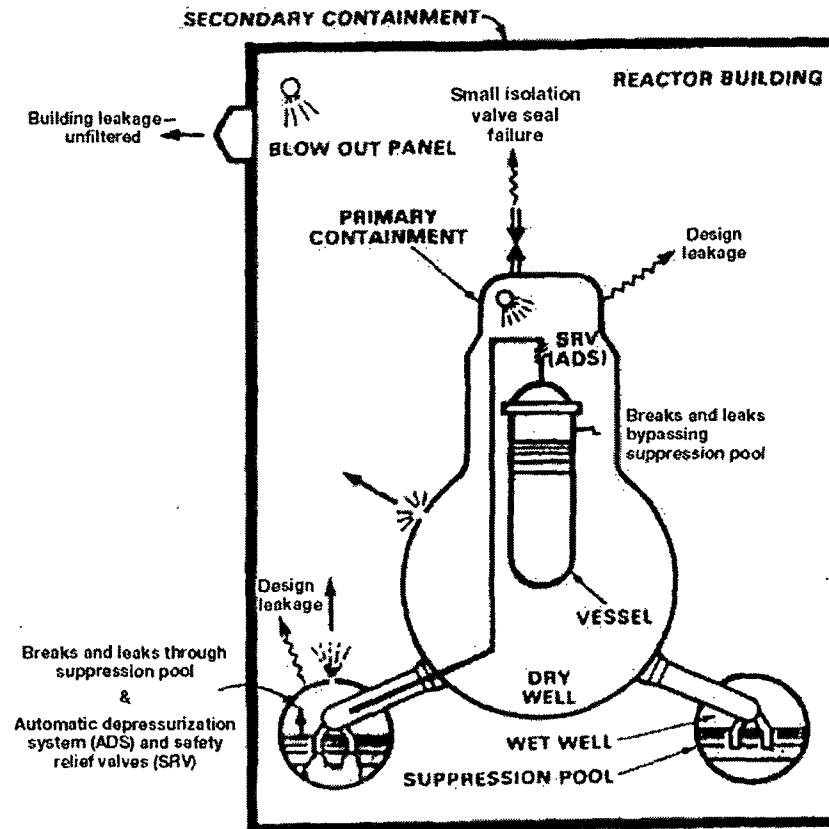
Secondary containment:
Area of explosion at
Fukushima Daiichi 1

Primary containment:
Remains intact and safe

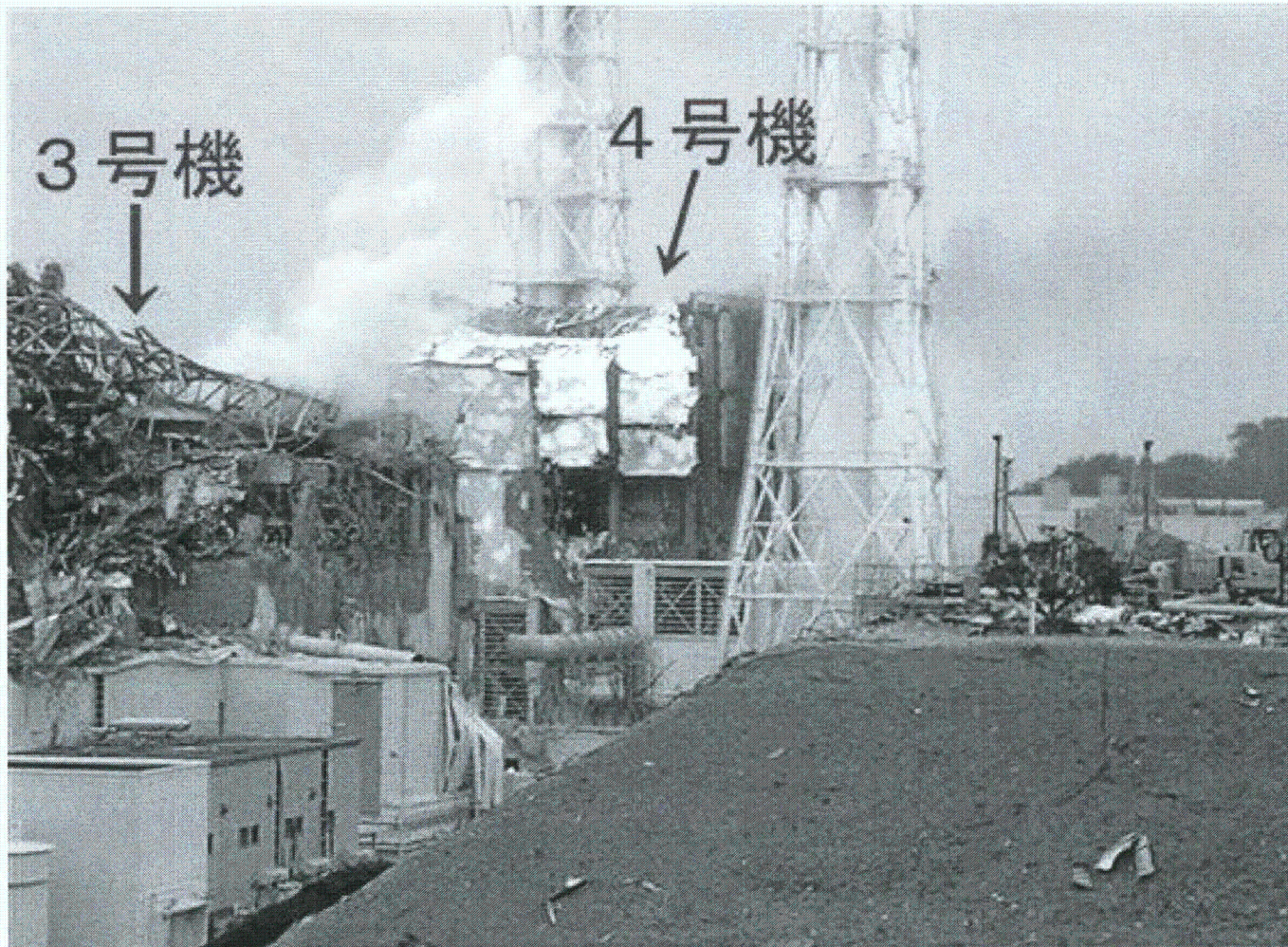


Boiling Water Reactor Design

Mark I Containment Release Pathways Simplified



Most Recent View of Units 3 & 4





Where to Learn More at This Time

Check the NRC web site or blog for the latest information on NRC actions. Other sources of information include:

USAID -- www.usaid.gov

U.S. Dept. of State -- www.state.gov

FEMA -- www.fema.gov

White House -- www.whitehouse.gov"

Nuclear Energy Institute -- www.nei.org

International Atomic Energy Agency -- www.iaea.org/press/

Andersen, James

From: Andersen, James
Sent: Friday, March 18, 2011 7:45 AM
To: Howe, Allen; Leeds, Eric; Boger, Bruce
Cc: Merzke, Daniel
Subject: FW: Briefing on NRC Response to Recent Nuclear Events in Japan followed by Agenda Planning, Monday, 3/21 Beginning 9 am
Attachments: 110321 NRC Response to Events in Japan VERSION B Scheduling Note.docx

Latest version of the scheduling note and SECY plan to announce the meeting.

Jim A.

From: Vietti-Cook, Annette
Sent: Thursday, March 17, 2011 7:33 PM
To: Svinicki, Kristine; Apostolakis, George; Magwood, William; Ostendorff, William
Cc: Sharkey, Jeffry; Lepre, Janet; Sosa, Belkys; Blake, Kathleen; Bubar, Patrice; Crawford, Carrie; Nieh, Ho; Zorn, Jason; Coggins, Angela; Batkin, Joshua; Burns, Stephen; Rothschild, Trip; Bates, Andrew; Baval, Rochelle; Laufer, Richard; Borchardt, Bill
Subject: Briefing on NRC Response to Recent Nuclear Events in Japan followed by Agenda Planning, Monday, 3/21 Beginning 9 am

Because of the short timeframe and great interest in this event, I am sending this to you directly. Attached for your review and approval is the Scheduling Note for the Commission Briefing on NRC Response to Recent Nuclear Events in Japan. The Commission agreed on Tuesday, March 15, 2011, to hold this meeting on short notice. My plan is to announce the Commission Briefing tomorrow morning on the NRC public website, which provides the title of the meeting, date, time and location. A Federal Register Notice is also sent, but will not be published before the meeting. My understanding is that OPA will be doing a press release. Once you have approved the Scheduling Note it will be posted on the public website along with NRC staff presentation slides that are consistent with the Commission's approved scheduling note. This is our usual practice. Staff is working on background material and slides which we expect tomorrow.

This Commission meeting will be followed by an Agenda Planning Session in the 18th floor conference room. The Commission would discuss the scheduling of meetings the Commission would like to have in response to the events in Japan. The Commission will also consider the scheduling of the meetings and papers that are already on its agenda.

Annette

SCHEDULING NOTE

Title: BRIEFING ON NRC RESPONSE TO RECENT NUCLEAR EVENTS IN JAPAN (Public Meeting)

Purpose: To provide the Commission a status on the recent events in Japan, NRC's response, and planned actions.

Scheduled: March 21, 2011
9:00 am

Duration: Approx. 2 hours

Location: Commissioners' Conference Room OWFN

Participants: **Presentation**

NRC Staff Panel **50 mins.***

Bill Borchardt, Executive Director for Operations

Topics:

- Overview of Japanese event and U.S. response
- Discussion of expectation of no harm to U.S. population
- Discussion of general radiation health effects
- Discussion of current regulatory approaches for reactors
- Path forward; near term and longer term

Commission Q & A **50 mins.**

Discussion – Wrap-up **5 mins.**

Documents:

Background materials due to SECY: prior to the briefing.

Slides due to SECY: prior to the briefing.

Weber, Michael

From: Weber, Michael
Sent: Friday, March 18, 2011 8:42 AM
To: Haney, Catherine
Subject: RESPONSE - Dan

I'm OK if you are confident that Vonna and John can lead your office in your absence. Dan would be an excellent candidate. If he goes, he may be out for several weeks.

From: Haney, Catherine
Sent: Friday, March 18, 2011 8:38 AM
To: Weber, Michael
Subject: Dan

I just spoke with Eric and told him that I fully support Dan going to Japan. This means we will both be out next week but I will monitor emails. Also, time difference is only 5 hours which will make communication easier.

John can act for Monday and Tuesday and Vonna can act for the remainder of the week. I had expected Dan to be on the ET next week so I had already adjusted the schedule to move meetings forward or into the next week.

As I'm not close to what is going on over there, I wanted to check with you to be sure you are still ok with me going tomorrow.

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Andersen, James

From: Andersen, James
Sent: Friday, March 18, 2011 7:46 AM
To: Johnson, Michael
Subject: FW: Briefing on NRC Response to Recent Nuclear Events in Japan followed by Agenda Planning, Monday, 3/21 Beginning 9 am
Attachments: 110321 NRC Response to Events in Japan VERSION B Scheduling Note.docx

Mike, latest scheduling note for the Commission meeting and the SECY plan to announce the meeting.

Jim A.

From: Vietti-Cook, Annette
Sent: Thursday, March 17, 2011 7:33 PM
To: Svinicki, Kristine; Apostolakis, George; Magwood, William; Ostendorff, William
Cc: Sharkey, Jeffrey; Lepre, Janet; Sosa, Belkys; Blake, Kathleen; Bubar, Patrice; Crawford, Carrie; Nieh, Ho; Zorn, Jason; Coggins, Angela; Batkin, Joshua; Burns, Stephen; Rothschild, Trip; Bates, Andrew; Baval, Rochelle; Laufer, Richard; Borchardt, Bill
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Annette

Merzke, Daniel

From: Merzke, Daniel
Sent: Friday, March 18, 2011 7:23 AM
To: Gott, William
Cc: McDermott, Brian; Morris, Scott; Andersen, James
Subject: FW: NRO- response- Staffing Op Center
Attachments: NRO staff -OP Center Support- Japan.docx

Bill, I'm not sure if someone at the Ops Center requested a list of staff available for future staffing of the Ops Center, but somehow, this list found its way to me. Let me know if I should send it to someone else. Thanks.

Dan

From: Rosales-Cooper, Cindy
Sent: Thursday, March 17, 2011 5:27 PM
To: Williams, Shawn; Merzke, Daniel
Cc: Andersen, James
Subject: FW: NRO- response- Staffing Op Center

FYI...I received an out of office response from both Mary and Nathan.

From: Rosales-Cooper, Cindy
Sent: Thursday, March 17, 2011 5:26 PM
To: Muesle, Mary; Sanfilippo, Nathan; Evans, Michele
Cc: Holahan, Gary
Subject: NRO- response- Staffing Op Center

Michelle,
Attached is the list of staff from NRO who is available to staff the Operations Center during the Japan-Fukushima emergency.

Thanks

Cindy E. Rosales-Cooper
Technical Assistant for International Activities
Office of New Reactors
(301) 415-1168

NRO Staff available to Staff Op-Center Fukushima Emergency

3/17/2011

Liaison Team

Cindy Rosales-Cooper (trained LIA-International)
Theresa Clark
Omid Tabatabai
Doug Copeland
Jay Patel
Clint Ashley

Protective Measures Team

Michelle Hart
Charles Hinson-
35 years of NRC Health Physics experience-reviewer for ABWR/ESBWR occupational
David Brown- Meteorology
Brad Harvey- Meteorology
Michael Mazaika- Meteorology
Yong Li- GIS
Stephanie Devlin- GIS
Alice Stieve- GIS
Ed Roach-
(currently HPN Communicator) 25 + years industry experience on PWR/emergency
response/health physics (familiar with RASCAL-formerly qualified in Radiological
Assessment)
Ron LaVera-
25 + years industry experience, Certified Health Physicist
George CiCotte-
25 + years regulatory experience, previously qualified HP inspector in NRC and
Agreement State.
Tim Frye –
Former NRR/NRO Health Physics BC, Qualified Resident Inspector BWR-2 (Oyster
Creek)
Peter Kang
Environmental qualification
Joseph Giacinto- Groundwater

Reactor Safety Team

RST Director:

G Holahan
L Dudes (except 3/21- 3/26)
C Ader (except 3/21- 3/26)
M Mayfield

RST- staff

Rich Laura –

RST general support, BWR knowledge, resident inspector

Chris Welch –

was previously qualified and served on the reactor safety team

Al Issa – Significant BWR Design Experience

Manas Chakravorty - Structural

Samir Chakrabarti - Structural

David Jeng – Structural

Jim Xu – Structural

George Thomas- Reactor Systems

Jim Gilmer- Reactor Systems

John Budzynski- Reactor Systems

Zahira Cruz- ET Actions Officer

Ronaldo Jenkins- Electrical Systems

RST Coordinator:

Mark Lombard (except 3/21- 3/26)

Thomas Bergman

Juan Peralta – BC, Integrated Plant Testing/Startup Testing

Shanlai Lu

Jeff Schmidt

Ryan Eul

Severe Accident / PRA:

Don Dube

Ed Fuller

Mark Caruso- PRA/b.5.b

Andrzej Drozd- Severe Accident

BWR Expert

Mike Brown:

Already on the watch bill for BWR experience.

Bob Lukes:

Team Leader, Qualified at Clinton (BWR); 3 months as Resident; HP experience

Tom Fredette:

Former BWR resident inspector and PWR operations STA

Richard Rasmussen –

BC Resident inspector experience, BWR training, and PRA training

Jeff Jacobson –

Resident inspector experience, BWR training, and PRA training

Bob Prato –

BWR Equivalent SRO Cert Susquehanna, 2 year STA Susquehanna, 4 year plant maintenance engineer Susquehanna, SOARCA Project Manager, B.5.b Project, Target Set Analysis

Kerri Kavanagh –
Significant BWR Experience

Doug Bullock -
Resident inspector experience, BWR training, and PRA training

Stacy Smith –
Resident inspector experience, BWR training, and PRA training

Eugene Huang –
Resident inspector experience, BWR training, and PRA training

Garrett Newman –
Resident inspector experience, BWR training, and PRA training

Tom Kendzia –
SRO PWR (North Anna), Significant Industry Experience.

Dinesh Taneja –
BWR and environmental qualification

Joseph Ashcraft –
BWR and environmental qualification

David Terao –
previous experience working for Sargent & Lundy doing design backfits for Dresden and
Quad Cities (BWR-3 plants)

Larry Wheeler-
BWR – was a STA at Perry

RST Comm / ERDS Operator

Joe Williams
Ed Roach has some experience on the plant side of ERDS.
Richard Emch

RST Support (Seismology Q&A)

N Chokshi
John Ma
Cliff Munson
Bret Tegeler
Pravin Patel
Dogan Seber

Others willing to support as needed:

Nebiyu Tiruneh- GIS
Daniel Barnhurst- GIS
Henry Jones
Richard Raione
Kenneth See
Peter Chaput
Mark McBride

Andersen, James

From: Howe, Allen
Sent: Saturday, March 19, 2011 12:31 PM
To: Andersen, James
Subject: FW: IN 2011-05 Tohoku-Taiheiyou-Oki Earthquake Effects on Japanese Nuclear Power Plants (ML110760432)
Attachments: ML110760432.pdf

From: Boska, John
Sent: Friday, March 18, 2011 5:45 PM
To: Gratton, Christopher; Howe, Allen
Subject: FW: IN 2011-05 Tohoku-Taiheiyou-Oki Earthquake Effects on Japanese Nuclear Power Plants (ML110760432)

Fyi.

John Boska
Indian Point Project Manager, NRR/DORL
U.S. Nuclear Regulatory Commission
301-415-2901
email: john.boska@nrc.gov

From: Cathy Hawes [<mailto:cmh2@nrc.gov>]
Sent: Friday, March 18, 2011 6:17 PM
To: Boska, John
Subject: IN 2011-05 Tohoku-Taiheiyou-Oki Earthquake Effects on Japanese Nuclear Power Plants (ML110760432)

Attached is an PDF version Information Notice 2011-05, Tohoku-Taiheiyou-Oki Earthquake Effects On Japanese Nuclear Power Plants, dated March 18, 2011, (ML110760432), that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:
<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2011/>.

To subscribe or unsubscribe send an email to lyris@nrc.gov , no subject, and use one of the following commands in the message portion:

subscribe gc-nrr (first and last name)
unsubscribe gc-nrr (first and last name)

thanks
Cathy

Z/145

UNITED STATES
NUCLEAR REGULATORY COMMISSION
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-Taiheiyou-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-Taiheiyou-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, tsunami, 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/

Laura A. Dudes, Director
Division of Construction Inspection,
and Operational Programs
Office of New Reactors

/RA/

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.

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Division of Construction Inspection,
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Office of New Reactors

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Office of Nuclear Reactor Regulation

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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

OFFICE	NRR/DPR/PGCB	TECH EDITOR*	NRR/DIRS/D*	NRR/DE/D*	NSIR/DSP*
NAME	EBowman	KAzariah-Kribbs	BWestreich	PHiland (GWilson for)	RCorreia
DATE	03/17/2011	03/17/2011	03/17/2011	03/17/2011	03/17/2011
OFFICE	NRO/DCIP/CAEB*	DPR/PGCB/LA	DPR/PGCB/BC	NRO/DCIP/D	NRR/DPR/D
NAME	TFrye	CHawes	SRosenberg	LDudes (MShuaibi for)	TMcGinty
DATE	03/18/2011	03/17/2011	03/17/2011	03/18/2011	03/18/2011

OFFICIAL RECORD COPY

Taylor, Renee

From: Borchardt, Bill
Sent: Saturday, March 19, 2011 11:43 AM
To: Doane, Margaret; Skeen, David; Quinones, Lauren; Rodriguez, Veronica
Subject: RE: CNS

It's extremely unlikely that the Chairman will be able to give any thought to CNS until late next week. Other than expressing sympathy and talking about our response activities and plans for longer term evaluation, I don't think we should dramatically alter our presentation this late in the process. I would have no problem if another Commissioner substituted for the Chairman.

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

From: Doane, Margaret
Sent: Saturday, March 19, 2011 9:19 AM
To: Borchardt, Bill; Skeen, David; Quinones, Lauren; Rodriguez, Veronica
Subject: CNS

Bill did I tell you that Admr. Ellis' staff called about CNS. Is the Chairman going, what messages should we send. We should be aligned as a US Govt team in light of the ongoing crisis. Probably need to get with Eliot too.

I told him that the Chairman's presentation is the Exec. summary for the report, essentially. Maybe Lauren or Veronica can send them the areas of focus for the US. Also, did we let them know about the topics that Li Ganji sent out for countries to focus on?

I think another Commissioner could do CNS if the Chairman is too busy. Your thoughts?
Margie

Sent from an NRC Blackberry
Margaret Doane

2/146

Weber, Michael

From: Weber, Michael
Sent: Saturday, March 19, 2011 8:10 AM
To: RST01 Hoc
Cc: LIA06 Hoc; OST02 HOC; Powell, Amy
Subject: FYI - Another offer of technical help

Here's another potential asset, someone who claims he contributed to designing the safety systems at Fukushima Daiichi. Could be useful to solicit his participation on the consortium.

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

From: Powell, Amy
To: Weber, Michael
Cc: Schmidt, Rebecca; Droggitis, Spiros
Sent: Sat Mar 19 01:15:15 2011
Subject: Another offer of technical help

Mike -

One of OCA's contacts offered the name and contact numbers for Ken Wing, who designed the safety systems for the Fukushima reactor for GE. He is in Singapore. His phone numbers are 011 65 9856 1997 and 1 (831) 239-3269. I understand that the RST is considering such requests, so we wanted to pass this along.

Amy Powell
Associate Director
Office of Congressional Affairs
U. S. Nuclear Regulatory Commission
Phone: 301-415-1673

Sent from my Blackberry

and copy of
the document

2/147

Weber, Michael

From: Weber, Michael
Sent: Saturday, March 19, 2011 8:31 AM
To: Borchardt, Bill
Subject: Query - Call will be held on Saturday, March 19th at 7:45am

How do you want us to cover for OEDO? Do you plan to attend? Please advise.

From: LIA08 Hoc
To: Wiggins, Jim; Leeds, Eric; Sheron, Brian; Miller, Charles; Borchardt, Bill; Brenner, Eliot; Schmidt, Rebecca; Casto, Chuck; Burns, Stephen; Doane, Margaret; Muessle, Mary; Batkin, Joshua; Weber, Michael; Coggins, Angela; Anderson, James; Monninger, John; Smith, Brooke
Cc: Virgilio, Martin; LIA08 Hoc; HOO Hoc
Sent: Sat Mar 19 05:03:35 2011
Subject: Action: Call will be held on Saturday, March 19th at 7:45am

Good Morning Everyone,

Please be advised that this email is being sent to provide you with advanced notice of a 7:45am call where the agenda for a 2:00pm meeting with industry will be discussed. In addition, you will be requested to provide a representative from your organization to support a 2:00pm meeting with industry. Meeting purpose and objective are provided below.

Please call the HQ Operations Officer at 301-816-5100 and ask to be transferred to the ET bridge line to join the 7:45am conference call.

Thank you

Meeting Agenda

Purpose: Plan for and initiate a US government and industry consortium to support the Japanese in terminating the Fukushima reactor accident.

Objective: Align on an approach for addressing the technical, logistical, and political issues

Process:

- NRC Site Team brief on current status of the Fukushima site and on the relationship between various Japanese government and private sector organizations with an emphasis on roles, responsibilities and decision making authorities
- GE-H/Bechtel brief on current status of their operations
- INPO facilitated discussion of industry representatives on capabilities that can be brought to bear in the near term
- Open discussion on viable actions, strategies and priorities for terminating the event and gaining control over the situation
- Open discussion on challenges that need to be addressed

- Open discussion on roles and responsibilities, charter, and governance structure for the consortium and other members

2pm Meeting Participants:

Bill Webster, INPO
Randy Tropasso, INPO
Peter Orphanos, Exelon
Jerald Head, GE
Dr. Rosa Yang, EPRI (Sunday)
Mike Hughes, Bechtel
Joe Zwetolitz, AREVA
Dave Richardson, Babcock (Sunday)
Tom Vavoso, NR
Pete Lyons, DOE
OEDO, RES, NRR, NSIR, OPA, OGC, NRC Site Team, NRC, OIP, FSME, OCA, COMM

Taylor, Renee

From: Borchardt, Bill
Sent: Saturday, March 19, 2011 6:22 AM
To: Virgilio, Martin
Subject: Re: REPLY: consortium meeting tomorrow

Marty
If you're still at work, please call my BB
Bill Borchardt
Via blackberry

From: Virgilio, Martin
To: Coggins, Angela
Cc: Zimmerman, Roy; Moore, Scott; Morris, Scott; Wiggins, Jim; Borchardt, Bill; Leeds, Eric; Sheron, Brian; Brenner, Eliot; Schmidt, Rebecca
Sent: Sat Mar 19 03:09:10 2011
Subject: REPLY: consortium meeting tomorrow

Angela

By the end of this shift we will have an agenda, list of non NRC attendees and a background package for each participant.

We should have logistical details (location, access, hotel rooms...), too.

We will need to engage Bill and the several of the office directors to finalize the list of NRC participants. We will have a call first thing tomorrow morning to confirm the names of the NRC participants.

Marty

From: Coggins, Angela
Sent: Friday, March 18, 2011 10:47 PM
To: Virgilio, Martin
Subject: consortium meeting tomorrow

Marty, please let me know when you've been able to confirm Mr. Borchardt's participation in this consortium meeting tomorrow. I would love for the Chairman not to have to come in to cover it, if possible. And thanks for your quick support on setting up a team for our planning efforts. We look forward to seeing them tomorrow! Thanks!

Angela B. Coggins
Policy Director
Office of Chairman Gregory B. Jaczko
U.S. Nuclear Regulatory Commission
[301-415-1828](tel:301-415-1828)/angela.coggins@nrc.gov

Andersen, James

From: Borchardt, Bill
Sent: Sunday, March 20, 2011 11:49 AM
To: Jaczko, Gregory
Cc: Weber, Michael; Virgilio, Martin; Muessle, Mary; Andersen, James
Subject: RE: Japan Follow-up

Chairman: will do

Mary: please have Jim and staff start on this.

From: Jaczko, Gregory
Sent: Sunday, March 20, 2011 11:37 AM
To: Borchardt, Bill
Subject: Fw: Japan Follow-up

Fyi. And can you draft up a tasking memo and a com that would accomplish each of these

From: Batkin, Joshua
To: Jaczko, Gregory
Sent: Sat Mar 19 18:50:50 2011
Subject: RE: Japan Follow-up

Chairman – attached is a revised version of Bill's plan that includes WCO/GEA language and WDM language.

Near Term Review:

- 90 day effort
- Evaluate currently available technical and operational information from the event to identify near term (or immediate) operational or regulatory issues affecting US operating reactors of all designs in areas such as protection against earthquake, tsunami, flooding, hurricanes; station blackout and a degraded ability to restore power; severe accident mitigation; and emergency preparedness.
- Develop recommendations for generic communications, orders, etc
- This would possibly include a 30 day quick look report
- Limited stakeholder involvement informed by, but independent of industry efforts
- Public report

Longer Term Review:

- Would start after we have sufficient technical information from Japan
- Evaluate all technical and policy issues to identify additional research, generic issues, changes to ROP, rulemakings, adjustments to the regulatory framework, etc that should be conducted by NRC
- Evaluate interagency issues (EP)
- Applicability to non-operating reactor facilities
- Substantive stakeholder involvement
- Public report

2/150

Andersen, James

From: Andersen, James
Sent: Sunday, March 20, 2011 6:04 PM
To: Laufer, Richard; Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffry; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth
Cc: Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca; Borchardt, Bill; Weber, Michael; Ash, Darren; Virgilio, Martin; Muessle, Mary; Landau, Mindy; Leeds, Eric; Howe, Allen; Gratton, Christopher; Boska, John; Grobe, Jack
Subject: Materials for March 21st Commission Briefing on Japan Event (Staff Slides)
Attachments: Staff Slides for March 21 Meeting Rev 1.pptx

Attached are the staff slides for the Commission Meeting on March 21, 2011, "Briefing on NRC Response to Recent Nuclear Events in Japan." I am sending this information out via two e-mail list, I apologize if you are getting it twice.

Jim Andersen
Deputy AO, TBPM, OEDO
415-1725.

From: Laufer, Richard
Sent: Friday, March 18, 2011 4:46 PM
To: Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffry; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth
Cc: Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Andersen, James; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca
Subject: Materials for March 21st Commission Briefing on Japan Event

Attached is the final scheduling note for the March 21st Commission briefing on the Japan Event. Staff slides should be emailed later today by Jim Andersen (OEDO).

Note that Commissioner Magwood goes first with questions.

Below are a few meeting logistics for your information:

- Bill Borchardt will be the only NRC staff member at the table.
- The seats in the well are reserved for DEDOs / Office Directors

2/15/11

- The stadium seating to the Commissioners left will be reserved for designated technical staff (who may be called upon during the meeting) and Commission Office EAs/TAs
- The stadium seating to the Commissioners right will be reserved for Press Corps/OPA
- Some of the stadium seating in front of the Commissioners will be reserved for VIPs (Congressional Office staffers).
- The remaining stadium seats in front of the Commissioners will be open to the public.

Once the available public seats are filled, members of the public will be directed around the back of the building where they will enter the TWFN Auditorium to view the Commission meeting.

Thanks,
Rich



Briefing on NRC Response to Recent Nuclear Events in Japan

Bill Borchardt
Executive Director for Operations
March 21, 2011

Agenda

- **Event Overview**
- **Immediate NRC Response**
- **Continuing NRC Response**
- **Health Effects of Radiation**
- **Domestic Reactor Safety**
- **Path Forward**

2

Event Overview

- **Discussion of initiating event**
- **Current status of reactors**
- **Current status of spent fuel pools**

3

Immediate NRC Response

- **Activated Operations Center**
- **Dispatched NRC experts to Japan**
- **Areas of focus**
- **Extensive outreach to stakeholders**

4

Continuing NRC Response

- **Operations Center**
- **Support U.S. response**
- **Provide assistance**
- **Mobilize resources**

5

Health Effects of Radiation

- **Offsite Doses**
- **Radiological Consequences**

6

Domestic Reactor Safety

- **NRC oversight of U.S. plant safety**
- **Continuous improvement based on operating experience**

7

NRC Activities – Near Term

- **Inspection Activities**
- **Generic Communications**
- **Immediate regulatory actions**

8

NRC Activities – Longer Term

- ***Lessons learned and recommendations***
- ***Regulatory actions, for example, to identify potential:***
 - ***Research projects***
 - ***Generic Issues***
 - ***Regulatory enhancements***

9

Conclusion

10

Andersen, James

From: Castleman, Patrick
Sent: Sunday, March 20, 2011 2:54 PM
To: Weber, Michael; Orders, William; Franovich, Mike; Sosa, Belkys; Marshall, Michael
Cc: Andersen, James; OST02 HOC; FOIA Response.hoc Resource; Virgilio, Martin
Subject: RE: Response - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

Thanks, Mike.

That's disappointing. I had been hoping to provide the list to my principal in time to support tomorrow morning's Commission meeting. I think my counterparts in the other offices had similar hopes. Marty Virgilio led the conference call at which this item was briefed, so you might want to check with him--I'm copying him on this message to give him a heads up that you may be checking with him.

Regards, Pat

From: Weber, Michael
Sent: Sunday, March 20, 2011 12:08 PM
To: Castleman, Patrick; Orders, William; Franovich, Mike; Sosa, Belkys; Marshall, Michael
Cc: Andersen, James; OST02 HOC; FOIA Response.hoc Resource
Subject: Response - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

Pat,

I understand your concern. I do not believe that you were misinformed, but there may have been some miscommunication during the ongoing response. I should know better when I return to shift tomorrow morning.

From: Castleman, Patrick
To: Weber, Michael; Orders, William; Franovich, Mike; Sosa, Belkys; Marshall, Michael
Cc: Andersen, James; OST02 HOC
Sent: Sun Mar 20 09:36:40 2011
Subject: RE: Response - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

Mike,

The information we seek was provided to USAID, not the Japanese embassy. I'm not sure what to make of this. Either the list exists, or we were misinformed about the outreach to USAID during last Monday's 1530 conference call. I can't think of any other possibilities.

Thanks. Pat

From: Weber, Michael
Sent: Saturday, March 19, 2011 1:27 PM
To: Orders, William; Castleman, Patrick; Franovich, Mike; Sosa, Belkys; Marshall, Michael
Cc: Andersen, James; OST02 HOC
Subject: Response - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

I don't know whether such a list exists. I led the ET until Thursday on and off last week and do not recall seeing the list to which you and Pat are referring. The most specific and detailed proposal developed by the RST was the 4 train pump

train with spray nozzles to get water back into the spent fuel pools. This is the information provided to the Japanese Embassy. If we had some other list and had it electronically, we would share it promptly.

From: Orders, William
To: Castleman, Patrick; Weber, Michael; Franovich, Mike; Sosa, Belkys
Cc: Andersen, James; OST02 HOC
Sent: Sat Mar 19 10:07:53 2011
Subject: Re: FYI - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

I believe all of the Commission offices would like to have a copy of the list or at least the link to get to it, if it is not to much trouble or distraction.

Bill

From: Castleman, Patrick
To: Weber, Michael; Orders, William; Franovich, Mike; Sosa, Belkys
Cc: Andersen, James; OST02 HOC
Sent: Sat Mar 19 10:02:43 2011
Subject: RE: FYI - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

Thanks, Mike. The information appears to be an equipment list for the Bechtel pumping system.

The information we had requested is something different. It was reported during the 1530 Monday conference call that the NRC staff is working with USAID to identify additional equipment that could be brought in to help with mitigation. We had provided USAID with a list that was largely developed from our B5b experience (portable pumps, generators, and so forth). That list was provided to Chuck Casto. We're not sure of what ultimately became of it. Our interest in getting the list is to provide useful background for our principals for this Monday's Commission meeting. Mike Franovich told me that, when he was in the ops center, he saw the list over with the RST.

Thanks. Pat

From: Weber, Michael
Sent: Saturday, March 19, 2011 8:29 AM
To: Castleman, Patrick; Orders, William; Franovich, Mike; Sosa, Belkys
Cc: Andersen, James; OST02 HOC
Subject: FYI - Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki (OUO Attachments)

Good morning. Is this the information that the Commission Offices have been seeking regarding the "equipment" requests that we have shared with USAID? First time that I have seen it on an email.

From: LIA07 Hoc
Sent: Sat Mar 19 06:24:53 2011
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

Weber, Michael

From: Weber, Michael
Sent: Sunday, March 20, 2011 12:44 PM
To: Wiggins, Jim
Subject: Response - Update

Thanks, Jim. I think you have the information and contacts there to arrange the call. I support including AID and NSC (Julie Bentz or higher) given its focus on logistics. DOE, NR, and our team in Tokyo should also be on among the other participants. Our liaisons at AID can identify reps from there.

From: Wiggins, Jim
To: Weber, Michael; OST02 HOC; LIA06 Hoc
Cc: Doane, Margaret
Sent: Sun Mar 20 12:31:38 2011
Subject: RE: Update

I'm on watch and need some direction wrt to the phone call. I've tasked the Liaison Team to set up the call. Need to give the team definitive guidance re: the players, by name, on the call. We put USAID on it based on the Chairman's email...though he put a ? after that org.

From: Weber, Michael
Sent: Sunday, March 20, 2011 12:22 PM
To: Wiggins, Jim; OST02 HOC; LIA06 Hoc
Subject: FYI - Update

From: Doane, Margaret
To: Ramsey, Jack; Henderson, Karen
Cc: Mamish, Nader; Weber, Michael; Virgilio, Martin; Borchardt, Bill
Sent: Sun Mar 20 12:17:22 2011
Subject: Fw: Update

Jack and Karen
Please review questions at issue below. I think NSC should be on line at 2:00, involved in organizing this. It has lead in multi-agency effort not definitely anyone's jurisdiction. US AID to me is logistics, after others put plan in place. As for contact at Embassy, the economic counselor at the embassy deals with industry interacting with Japan on a routine basis. Why shouldn't we put these questions to the EC in Tokoyo.
What are you views.
Margie
Margie

Sent from an NRC Blackberry
Margaret Doane

From: Borchardt, Bill
To: Wiggins, Jim
Cc: Weber, Michael; Virgilio, Martin; Doane, Margaret
Sent: Sun Mar 20 11:24:17 2011
Subject: FW: Update

Please have someone set up the call

501
From: Jaczko, Gregory
Sent: Sunday, March 20, 2011 11:15 AM
To: Borchardt, Bill
Cc: Batkin, Joshua; Weber, Michael; Virgilio, Martin; Wiggins, Jim
Subject: Re: Update

Set up the pre 2 pm call and include ellis and usaid(??)

From: Borchardt, Bill
To: Jaczko, Gregory
Cc: Batkin, Joshua; Weber, Michael; Virgilio, Martin; Wiggins, Jim
Sent: Sun Mar 20 11:12:17 2011
Subject: Update

Chairman,

- 1) Just got off the phone with Bill Webster (INPO). INPO has committed to send 2 industry people with logistics type experience to Japan to begin enhanced interactions with TEPCO. They are expected to leave tonight or Monday. I assured him that our in-country team (and the embassy) would help establish points of contact between the US industry reps and the TEPCO/Japan reps.
- 2) I believe that you are going to have to weigh in on the subject of identifying a lead US Government entity that has the necessary project management and logistics expertise. I raised the topic at the "consortium" meeting Saturday afternoon and privately with DOE (Pete Lyons) and the Naval Reactors representative but did not make any headway. Everyone seems to agree that NRC does not have the necessary skill set but neither of those 2 organizations were immediately willing to assume that role. There is a 2pm Monday status update teleconference being set up for consortium participants. It might be useful if you, DOE, and ADM Donald could talk before the 2pm call.

Bill

Weber, Michael

From: Weber, Michael
Sent: Sunday, March 20, 2011 12:14 PM
To: Haney, Catherine
Subject: Response - JAPAN RESPONSE EXIT CRITERIA

Understood. I agree with your assessment and delegations. For the first time in a week, the situation at Fukushima Daiichi appears to be improving somewhat.

Bon soir, Madame

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

From: Haney, Catherine
To: Weber, Michael
Sent: Sun Mar 20 12:09:13 2011
Subject: Re: Response - JAPAN RESPONSE EXIT CRITERIA

Mike

I agree with Vonna meeting with the group but be aware John is acting on Monday and Tuesday for me and Vonna is acting the rest of the week.

I did this because Vonna had an outside appt on Tuesday she couldn't break and I didn't want her on one day and then John on Tuesday and her again for the remainder of the week. Also Doug is out of the office for a few more days leaving only Vonna in sfst. Although Vonna has been very anxious to help out, I still need to be sensitive to sfst needs.

There is delegation memo that Dwight will distribute on Monday. I signed it on Friday but didn't want to distribute until I knew Dan was going.

I asked John to represent the office on Monday at the Commission meeting and Vonna to be there if help was needed with questions.

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

From: Weber, Michael
To: Ordaz, Vonna
Cc: Haney, Catherine; Dorman, Dan; Evans, Michele
Sent: Sun Mar 20 11:59:54 2011
Subject: Response - JAPAN RESPONSE EXIT CRITERIA

Vonna - you should do this if you are available because you have awareness of the agency's response and current status. Note that I expect we will maintain Ops Center staffing as long as we have staff responding in Japan. You should also be aware of the agency strategy to reduce our leadership and involvement in the response once cooling is restored, the plants have stabilized, and the immediate crises shifts into a sustainable recovery and cleanup process. I expect DOE will assume leadership among the Federal departments and agencies at that time. Our transition plan and exit criteria need to account for the needs and transitions.

Thanks

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

From: Ordaz, Vonna
To: Evans, Michele; Holahan, Gary; Grobe, Jack; Wiggins, Jim; Mamish, Nader; Kinneman, John

Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James; Salus, Amy
Sent: Sun Mar 20 11:14:11 2011
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA

Yes, one of us will be there. Please include John Kinneman and me on the emails. We are covering NMSS OD/DOD this week.

Thanks,
Vonna

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

NR
From: Evans, Michele
Sent: Sunday, March 20, 2011 11:05 AM
To: Holahan, Gary; Grobe, Jack; Wiggins, Jim; Mamish, Nader; Ordaz, Vonna; Kinneman, John
Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James; Salus, Amy
Subject: Re: ACTION: JAPAN RESPONSE EXIT CRITERIA

Yes. 1 PM in the NSIR conference room down hall from Ops Center. I'll send out appointment later today.

Vonna or John: would like one of you for NMSS as discussed below.

Also need Nader.

Thanks.
Michele

Sent from an NRC Blackberry
Michele Evans

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

NR
From: Holahan, Gary
To: Grobe, Jack; Wiggins, Jim; Evans, Michele
Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James
Sent: Sun Mar 20 10:49:21 2011
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA

Sounds good to me.

Gary

NR
From: Grobe, Jack
Sent: Sunday, March 20, 2011 8:15 AM
To: Wiggins, Jim; Evans, Michele
Cc: Uhle, Jennifer; Boger, Bruce; Holahan, Gary; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James
Subject: Re: ACTION: JAPAN RESPONSE EXIT CRITERIA

Michele

Should we start this Monday afternoon? I think we should include the Deputy OIP since this is also a diplomacy question.

Jack Grobe, Deputy Director, NRR

From: Wiggins, Jim

To: Evans, Michele

Cc: Uhle, Jennifer; Grobe, Jack; Boger, Bruce; Holahan, Gary; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James

Sent: Sat Mar 19 08:03:29 2011

Subject: ACTION: JAPAN RESPONSE EXIT CRITERIA

QUIETLY.....w/o fanfare or notice.....

Plz get with the other Big 5 Deputies (with Dan D. out of pocket and Cathy on tvl, will have to decide on NMSS's contributor) to put together sets of criteria that would need to be met for us to stand-down at the Ops Ctr and for the site team in Japan to be recalled.

Weber, Michael

From: Weber, Michael
Sent: Sunday, March 20, 2011 11:55 AM
To: Leeds, Eric; Sheron, Brian
Cc: Andersen, James; FOIA Response.hoc Resource; OST02 HOC
Subject: FYI - Japan Follow-up

From: Borchardt, Bill
To: Jaczko, Gregory
Cc: Weber, Michael; Virgilio, Martin; Muessle, Mary; Andersen, James
Sent: Sun Mar 20 11:49:21 2011
Subject: RE: Japan Follow-up

Chairman: will do

Mary: please have Jim and staff start on this.

From: Jaczko, Gregory
Sent: Sunday, March 20, 2011 11:37 AM
To: Borchardt, Bill
Subject: Fw: Japan Follow-up

Fyi. And can you draft up a tasking memo and a com that would accomplish each of these

From: Batkin, Joshua
To: Jaczko, Gregory
Sent: Sat Mar 19 18:50:50 2011
Subject: RE: Japan Follow-up

Chairman – attached is a revised version of Bill's plan that includes WCO/GEA language and WDM language.

Near Term Review:

- 90 day effort
- Evaluate currently available technical and operational information from the event to identify near term (or immediate) operational or regulatory issues affecting US operating reactors of all designs in areas such as protection against earthquake, tsunami, flooding, hurricanes; station blackout and a degraded ability to restore power; severe accident mitigation; and emergency preparedness.
- Develop recommendations for generic communications, orders, etc
- This would possibly include a 30 day quick look report
- Limited stakeholder involvement informed by, but independent of industry efforts
- Public report

Longer Term Review:

- Would start after we have sufficient technical information from Japan
- Evaluate all technical and policy issues to identify additional research, generic issues, changes to ROP, rulemakings, adjustments to the regulatory framework, etc that should be conducted by NRC
- Evaluate interagency issues (EP)
- Applicability to non-operating reactor facilities
- Substantive stakeholder involvement
- Public report

Merzke, Daniel

From: Merzke, Daniel
Sent: Monday, March 21, 2011 2:07 PM
To: Hipschman, Thomas; Castleman, Patrick; Snodderly, Michael; Orders, William; Franovich, Mike
Subject: FW: Commission request for Staff's 1 page assumptions for 3/16 Press release
Attachments: 1page Disc of Staff Assumptions for PR.pdf

A couple of Commission offices requested this information concerning staff assumptions used in dose calculations for 3/16 associated with the Japan event. These calculations were developed by the PMT that day.

Dan

Discussion of the MARCH 16, 2011 PRESS RELEASE DOSE ASSESSMENT ASSUMPTIONS

There are two dose assessments attached to the March 16th press release. Both assessments are worst case hypothetical, computer model analyses of consequences for releases from the Fukushima site. The first assessment assumed a Unit 2 reactor 100% core melt as an unfiltered release from a totally failed containment and actual meteorological conditions during early morning hours of the date indicated. The low dispersion characteristics included low wind speeds, relatively stable air, and light precipitation.

The second assessment represented multiple unit failures: 1) Unit 2 with 33% reactor core damage as an unfiltered release from a totally failed containment ; 2) Unit 3 spent fuel pool with 50% damage (with 180 bundles of spent fuel discharged 105 days ago) ; and 3) Unit 4 spent fuel pool with 100% damage (with 550 bundles of spent fuel discharged 30 days ago) . To account for the combined inventories of the three units, the staff adjusted the reactor power level, fuel burnup and number of assemblies in the calculation. The meteorological conditions for the second assessment also assumed actual conditions, but no precipitation, greater wind speeds, and less stable atmospheric conditions, result in greater atmospheric dispersion. In addition, the source term included two additional days of decay before release. For the multi-unit assessment, the increased decay time before release and the greater atmospheric dispersion significantly reduced the resultant dose estimate.

Although the dose projections for the first assessment are somewhat higher than the second assessment, the differences in the modeling assumptions did not affect the overall conclusion that protective action guides would be exceeded beyond fifty miles. Both assessments are highly speculative, given the lack of actual (representative) site data and assumed no mitigation of the current situation at the time of the press release.

Although there is postulated reactor core damage in Unit 1 and Unit 3, the primary containment structure is reported to be intact.

Merzke, Daniel

From: Merzke, Daniel
Sent: Monday, March 21, 2011 1:51 PM
To: Jones, Cynthia; LIA06 Hoc
Cc: Hoc, PMT12
Subject: RE: Commission request for Staff's 1 page assumptions for 3/16 Press release

Thanks Cyndi. I'll make sure they get it.

Dan

From: Jones, Cynthia
Sent: Monday, March 21, 2011 1:48 PM
To: LIA06 Hoc; Merzke, Daniel
Cc: Hoc, PMT12
Subject: Commission request for Staff's 1 page assumptions for 3/16 Press release

Dear LT & Dan-

Commission Magwood and Svinicki offices have verbally requested to me that they would like a copy of the staff's justification for the dose assessment assumptions for the March 16 press release. I have attached a copy, as it was developed by the PMT when I was Director on March 16. Can you please confirm that this gets to the Commission offices?

Thanks
Cyndi

Merzke, Daniel

From: Merzke, Daniel
Sent: Monday, March 21, 2011 7:42 AM
To: Tadesse, Rebecca
Subject: FW: NEW URGENT REQUEST -- SNL BWR tests - (OUO-Privileged Information)

Rebecca, I'm assuming based on the below e-mail string that you made a request for information. There are three reports in ADAMS with the accession numbers listed below, which may be what you're looking for.

Dan

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

From: Gibson, Kathy
Sent: Saturday, March 19, 2011 7:40 AM
To: Merzke, Daniel
Subject: Fw: NEW URGENT REQUEST -- SNL BWR tests - (OUO-Privileged Information)

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

From: Gibson, Kathy
To: Bowman, Gregory
Cc: Uhle, Jennifer; Scott, Michael; Zigh, Ghani; Sheron, Brian; Santiago, Patricia; Tinkler, Charles; Schaperow, Jason; Lee, Richard; Wagner, Katie
Sent: Sat Mar 19 07:39:00 2011
Subject: Re: NEW URGENT REQUEST -- SNL BWR tests - (OUO-Privileged Information)

Greg,
I believe this information was requested by Commissioner Magwood's office.

Ghani Zigh is the RES staff contact if there are questions.

Thanks,
Kathy

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

From: Zigh, Ghani
To: Sheron, Brian; Santiago, Patricia
Cc: Uhle, Jennifer; Gibson, Kathy; Scott, Michael
Sent: Sat Mar 19 07:09:11 2011
Subject: RE: NEW URGENT REQUEST -- SNL BWR tests - (OUO-Privileged Information)

Yes, SNL did perform other studies about 5 years ago.
These studies are in ADAMS under ML062550218, ML082261433, and ML0816800640.
These reports discuss the coolability limits (i.e. age of the assembly) for PWR and BWR assemblies for different configurations (i.e. management).
Five configuration were analyzed (Uniform, Checkerboard, 1X4, Checkerboard with empties, and 1x4 with empties)

for the BWR, the following results were found:

for Uniform configuration, the coolability limit is 310 days old fuel.
for Checkerboard configuration, the coolability limit is 117 days old fuel.

for 1x4 configuration, the coolability limits is 20 days old fuel.
for Checkerboard with empties configuration, the coolability limit is 25 days old fuel
for 1x4 with empties configuration, the coolability limit is 20 days old fuel.

The age of the fuel assembly as function of power is as follows for the BWR assembly:
310 days old is 2.7 kWatt
117 days is 5 kWatt
25 days is 10 kWatt
20 days is 10.3 kWatt

From: Sheron, Brian
Sent: Friday, March 18, 2011 10:32 PM
To: Santiago, Patricia
Cc: Uhle, Jennifer; Gibson, Kathy; Scott, Michael; Zigh, Ghani
Subject: RE: NEW URGENT REQUEST -- SNL BWR tests - (OUO-Privileged Information)

If this is the BWR fuel bundle ignition test, I do not think this is what they are looking for. Did SNL do a SFP study some time ago? Like 5-10+ years ago?

From: Santiago, Patricia
Sent: Friday, March 18, 2011 6:36 PM
To: Tadesse, Rebecca
Cc: Bubar, Patrice; Sheron, Brian; Rini, Brett; Uhle, Jennifer; Gibson, Kathy; Scott, Michael; Bowman, Gregory; Zigh, Ghani; Navarro, Carlos
Subject: NEW URGENT REQUEST -- SNL BWR tests - (OUO-Privileged Information)

Rebecca,

I believe the attached report is what you are requesting ---- Final BWR Sandia Fuel Project (SFP) Sandia Report.

We also have a time lapse video (OUO as well) that we can make a copy and provide Monday.

If you have additional questions, Ghani Zigh is the best person to assist.

Thanks
Pat

Landau, Mindy

From: Landau, Mindy
Sent: Monday, March 21, 2011 12:18 PM
To: Hayden, Elizabeth; Goldberg, Francine
Subject: RE: Webcast of this Mornings Meeting

I think the video of the actual meeting is way better than just Bill's opening remarks, so I would opt to wait for that. I thought it was great....

From: Hayden, Elizabeth
Sent: Monday, March 21, 2011 12:16 PM
To: Goldberg, Francine
Cc: Landau, Mindy
Subject: RE: Webcast of this Mornings Meeting

The Japan page and a homepage photo soon to be posted will link to the video (when available) and the transcript (also when available).

Mindy—if there is anything else we can post before the transcript is available (probably not until Wed—but we're pushing SECY) like Bill's remarks or anything else you know of, please let me know.

Beth

From: Goldberg, Francine
Sent: Monday, March 21, 2011 11:45 AM
To: Hayden, Elizabeth; Landau, Mindy
Cc: Reiter, Stuart; Hardy, Sally; Garrity, Paula
Subject: Webcast of this Mornings Meeting

Beth, Mindy –

The webcast this morning was a great source of information on the event in Japan and how our regulations require more defense in depth than was the case in Japan. Perhaps OPA already has plans to do this, but I suggest we include a link to it on this page <http://www.nrc.gov/japan/japan-info.html> and also link to the archived webcast in the highlights on the home page for a while.

Fran

From: Garrity, Paula
Sent: Monday, March 21, 2011 11:34 AM
To: Goldberg, Francine
Cc: Hoffman, Joan; Hardy, Sally
Subject: Webcast Archive

Hi Fran,

I spoke to Danita Stenberg (ADM), and she said that she requested expedited posting of this morning's Commission meeting to the Webcast Archive. The contract has a 4-hour window for expedited processing, so it should be available this afternoon.

Feel free to call if you need any additional information.

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• Hope this helps,

Paula

Rihm, Roger

From: Rihm, Roger
Sent: Monday, March 21, 2011 12:00 PM
To: Meighan, Sean
Cc: Nguyen, Quynh
Subject: RE: G20110190

You are correct, I'm on the hot seat and it is up to me to request your assistance. We are meeting with OCA tomorrow morning to come up with a plan for attacking the growing volume of congressional correspondence that is Japan-related. However, I also understand that we have been asked to testify at 5 hearing (so far!), so the correspondence may end up taking a back seat to that.... stay tuned. Are you in charge for the near term?

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

From: Meighan, Sean
Sent: Monday, March 21, 2011 11:31 AM
To: Rihm, Roger
Cc: Nguyen, Quynh
Subject: FW: G20110190

Good Morning Roger:

I just wanted to ensure NRR is in alignment with you on subject green ticket.

The GT is currently assigned to the EDO's office. The Action in the GT is " OEDO (Rihm) to coordinate with NRR, NMSS and NSIR, if required".

It is my understanding that NRR currently has no tasking or deliverable on subject green ticket. Is this correct? If not, could you let me know who you have coordinated with for NRR support.

Very Respectfully
Sean Meighan
(Acting) NRR TA

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

From: RidsNrrMailCenter Resource
Sent: Friday, March 18, 2011 5:31 PM
To: Meighan, Sean
Cc: Nguyen, Quynh
Subject: G20110190

Attached is a green ticket assigned to EDO on Investigation of Nuclear Facilities in the U.S.
- Withstand Catastrophic Natural or Man-Made Disasters.

Please forward to whomever you think should have it.

Thanks,
patti

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

From: Jaegers, Cathy
Sent: Friday, March 18, 2011 3:42 PM
To: Rihm, Roger

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Cc: RidsNrrMailCenter Resource; RidsNmssOd Resource; Rodgers, Mary; Walker, Dwight;
RidsNsirMailCenter Resource; Wimbush, Andrea; RidsOgcMailCenter Resource; Remsburg, Kristy;
RidsOcaMailCenter Resource; Belmore, Nancy
Subject: ACTION: G20110190

Attached is the action green ticket for OEDO (Rihm) to coordinate with NRR, NMSS and NSIR, if required. The ADAMS version will be sent after DPC processes.

Andersen, James

From: Virgilio, Martin
Sent: Monday, March 21, 2011 2:57 AM
To: Ordaz, Vonna; Evans, Michele; Holahan, Gary; Grobe, Jack; Wiggins, Jim; Mamish, Nader; Kinneman, John
Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Weber, Michael; Andersen, James; Salus, Amy
Subject: ACTION: JAPAN RESPONSE EXIT CRITERIA

All

I assume that you will consider the obvious: restoration of water levels, and reliable core and sf pool make up and cooling, as well as other indicators that conditions are improving.

Please link these criteria (and there might be more than one set) to the decisions that we will be making related to NRC response here in HQ and in the field and the "protective action" recommendations for US citizens in Japan.

Marty

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

From: Ordaz, Vonna
Sent: Sunday, March 20, 2011 11:14 AM
To: Evans, Michele; Holahan, Gary; Grobe, Jack; Wiggins, Jim; Mamish, Nader; Kinneman, John
Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James; Salus, Amy
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA

Yes, one of us will be there. Please include John Kinneman and me on the emails. We are covering NMSS OD/DOD this week.

Thanks,
Vonna

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

From: Evans, Michele
Sent: Sunday, March 20, 2011 11:05 AM
To: Holahan, Gary; Grobe, Jack; Wiggins, Jim; Mamish, Nader; Ordaz, Vonna; Kinneman, John
Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James; Salus, Amy
Subject: Re: ACTION: JAPAN RESPONSE EXIT CRITERIA

Yes. 1 PM in the NSIR conference room down hall from Ops Center. I'll send out appointment later today.

Vonna or John: would like one of you for NMSS as discussed below.

Also need Nader.

Thanks.
Michele

Sent from an NRC Blackberry
Michele Evans

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

From: Holahan, Gary
To: Grobe, Jack; Wiggins, Jim; Evans, Michele

2/16/11

Cc: Uhle, Jennifer; Boger, Bruce; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James
Sent: Sun Mar 20 10:49:21 2011
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA

Sounds good to me.

Gary

From: Grobe, Jack
Sent: Sunday, March 20, 2011 8:15 AM
To: Wiggins, Jim; Evans, Michele
Cc: Uhle, Jennifer; Boger, Bruce; Holahan, Gary; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James
Subject: Re: ACTION: JAPAN RESPONSE EXIT CRITERIA

Michele

Should we start this Monday afternoon? I think we should include the Deputy OIP since this is also a diplomacy question.

Jack Grobe, Deputy Director, NRR

From: Wiggins, Jim
To: Evans, Michele
Cc: Uhle, Jennifer; Grobe, Jack; Boger, Bruce; Holahan, Gary; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James
Sent: Sat Mar 19 08:03:29 2011
Subject: ACTION: JAPAN RESPONSE EXIT CRITERIA

QUIETLY.....w/o fanfare or notice.....

Plz get with the other Big 5 Deputies (with Dan D out of pocket and Cathy on tvl, will have to decide on NMSS's contributor) to put together sets of criteria that would need to be met for us to stand-down at the Ops Ctr and for the site team in Japan to be recalled.

Andersen, James

From: Evans, Michele
Sent: Monday, March 21, 2011 3:30 PM
To: Wiggins, Jim
Cc: Uhle, Jennifer; Grobe, Jack; Boger, Bruce; Holahan, Gary; Moore, Scott; Andersen, James; Muessle, Mary; Coe, Doug; Mamish, Nader; Ordaz, Vonna
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA
Attachments: Japanese Response Exit Criteria.docx

Jim,

Attached is an outline of what we discussed in the meeting today among the deputies regarding exit criteria for you to consider. I can further discuss with you tomorrow morning including thoughts on how to implement this criteria.

There was a lot of discussion, but the view is that our exit would be gradual over time. Over time, the teams would get smaller, could work from location outside of Ops Center, and potentially could be on call.

I've copied those who were in the meeting today, and haven't seen this summary yet, in case they want to provide any individualized input.

Michele

From: Wiggins, Jim
Sent: Saturday, March 19, 2011 8:03 AM
To: Evans, Michele
Cc: Uhle, Jennifer; Grobe, Jack; Boger, Bruce; Holahan, Gary; Moore, Scott; Virgilio, Martin; Weber, Michael; Andersen, James
Subject: ACTION: JAPAN RESPONSE EXIT CRITERIA

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2/16Z

Japanese Response Exit Criteria

NRC Mission

1. Support to Japanese Government
 - Currently USAID has lead and NRC Team in Japan is providing support.
2. Support to US Embassy in Japan
 - NRC Team in Japan has the lead.
3. USA Consortium provides support to Japanese "Industry"
 - Currently NRC facilitating this. Desire to transfer lead to another Government agency or INPO for example.
4. Identify any prompt impact on US Industry and US People
 - Currently NRC Operations Center has the lead.

Response Exit Criteria

- A. Predictable stable conditions at the facility such that new substantial releases are unlikely.
 - Would result in reduction in staffing of RST.
- B. Confidence that changes to PARs for US citizens in Japan are unlikely.
 - Would result in reduction in staffing of PMT.
- C. Advice to Embassy and Japanese Government is no longer urgently needed.
 - Would result in reduction in staffing of LT.

Andersen, James

From: Bavol, Rochelle
Sent: Tuesday, March 22, 2011 4:00 PM
To: Andersen, James; Wittick, Brian
Subject: RE: Japan/SBO Scheduling Note

Yes, okay. I wanted to ask, as I didn't know there was discussion that only external panelists for radiological consequences, not SBO.

Thank you,
Rochelle

From: Andersen, James
Sent: Tuesday, March 22, 2011 3:58 PM
To: Bavol, Rochelle; Wittick, Brian
Subject: RE: Japan/SBO Scheduling Note

I'm good with your tweaks. Since this is what is SBO and how works 101, an external panel does not make sense to me. My notes were that an external panel was only for the radiological consequences since the other agencies are involved. Not sure what the industry, NEI, Lochbaum, etc would add. I would like to go forward with no external panel on this one and see what Angela thinks. Okay?

Jim A.

From: Bavol, Rochelle
Sent: Tuesday, March 22, 2011 3:52 PM
To: Andersen, James; Wittick, Brian
Subject: RE: Japan/SBO Scheduling Note

What about external stakeholders? I think the Chairman is expecting them for this meeting too.

Also, I would tweak the purpose:

To provide the Commission with an updated on the status of the Japanese events in Japan and to provide an overview of the Station Blackout Rule.

Rochelle

From: Andersen, James
Sent: Tuesday, March 22, 2011 3:49 PM
To: Bavol, Rochelle
Cc: Wittick, Brian
Subject: Japan/SBO Scheduling Note

Rochelle, as discussed, here is the update on Japan and SBO focus scheduling note. Let Brian and I know if you have any questions. Thanks again for giving us the template.

Jim A.

2/163

Andersen, James

From: Andersen, James
Sent: Tuesday, March 22, 2011 3:49 PM
To: Baval, Rochelle
Cc: Wittick, Brian
Subject: Japan/SBO Scheduling Note
Attachments: 110428 Status on Japan and SBO.docx

Rochelle, as discussed, here is the update on Japan and SBO focus scheduling note. Let Brian and I know if you have any questions. Thanks again for giving us the template.

Jim A.

2/16A

Draft: 03/22/11

SCHEDULING NOTE

Title: BRIEFING ON STATUS OF NRC RESPONSE TO EVENTS IN JAPAN – STATION BLACKOUT (Public)

Purpose: To provide the Commission with an updated status of the Japanese event and to provide an overview of the Station Blackout Rule.

Scheduled: April 28, 2011
9:00 a.m.

Duration: Approx. 1 hour and 45 minutes

Location: Commissioners' Conference Room, 1st floor OWFN

Participants:	Presentation
<u>NRC Staff Panel</u>	50 mins.*
Marty Virgilio , Deputy Executive Director <u>Topic:</u> Update on NRC Response to Japanese Events	15 mins.*
Jack Grobe , Deputy Director for Engineering and Support Office of Nuclear Reactor Regulation <u>Topic:</u> Station Blackout Overview	5 mins.*
Patrick Hiland , Director for Engineering, Office of Nuclear Reactor Regulation <u>Topic:</u> Station Blackout Rule Background	10 mins.*
George Wilson , Chief of Instrumentation and Control Branch, Division of Engineering, Office of Nuclear Reactor Regulation <u>Topic:</u> Station Blackout Review and Approval Process	20 mins.*
Commission Q & A	50 mins.
Discussion – Wrap-up	5 mins

*For presentation only and does not include time for Commission Q & A's.

Documents:

Background due to SECY: April 14, 2011.
Slides due to SECY: April 21, 2011.

Andersen, James

From: Andersen, James
Sent: Tuesday, March 22, 2011 3:58 PM
To: Bavol, Rochelle; Wittick, Brian
Subject: RE: Japan/SBO Scheduling Note

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Subject: Japan/SBO Scheduling Note

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Jim A.

2/165

Andersen, James

From: Lewis, Robert
Sent: Tuesday, March 22, 2011 6:22 AM
To: Johnson, Michael; Grobe, Jack; Boger, Bruce; Holahan, Gary; Moore, Scott; Muessle, Mary; Coe, Doug; Mamish, Nader; Ordaz, Vonna; Weber, Michael; Evans, Michele; Wiggins, Jim; Morris, Scott; Andersen, James; Carpenter, Cynthia
Cc: Uhle, Jennifer; Virgilio, Martin; Miller, Charles; Zimmerman, Roy; McDermott, Brian; McGinty, Tim; Ross-Lee, MaryJane; Miller, Chris; Holahan, Patricia
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA
Attachments: Japanese Response Exit Criteria.docx

Jim and Michele

Overnight in the ops center we did some brainstorming around the subject and drafted the attached, for your consideration.

We also suggest Chuck and the site team be consulted on what "mission accomplished" looks like for them.

We've added to cc, several upcoming names from the watch bill, for awareness

- Rob

From: Wiggins, Jim
Sent: Monday, March 21, 2011 10:44 PM
To: Johnson, Michael
Subject: FW: ACTION: JAPAN RESPONSE EXIT CRITERIA

From: Wiggins, Jim
Sent: Monday, March 21, 2011 9:45 PM
To: Virgilio, Martin
Subject: FW: ACTION: JAPAN RESPONSE EXIT CRITERIA

Here is my answer

From: Wiggins, Jim
Sent: Monday, March 21, 2011 3:47 PM
To: Evans, Michele
Cc: ET07 Hoc
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA

I think we could use more granularity on Exit criteria A and B...tied to both the plants and the dose assessment...

e.g. cores in U1,2,3 are covered. Spent fuel in the units not further degrading based on rad levels: etc... Dose assessment – stable or decreasing results, field data available that corrects models, reentry criteria met for relaxing the 50 mile evac to something around XX miles....maybe keyhole...

Should split site team from Ops Ctr team and provide for scale-back options then stand-down.

25/166

From: Evans, Michele
Sent: Monday, March 21, 2011 3:30 PM
To: Wiggins, Jim
Cc: Uhle, Jennifer; Grobe, Jack; Boger, Bruce; Holahan, Gary; Moore, Scott; Andersen, James; Muessle, Mary; Coe, Doug; Mamish, Nader; Ordaz, Vonna
Subject: RE: ACTION: JAPAN RESPONSE EXIT CRITERIA

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Japanese Response Exit Criteria

Goal: Specify, in the context of NRC's original objectives, the conditions that enable NRC to: (a) exit NRC monitoring response mode for the HQ Ops Center; and (b) deactivate most Japan site team support to a longer term level of 1-2 staff members to advise the Embassy.

(a) Exiting monitoring mode for the HQ Ops Center

- **RST -**
 - Plant parameters are known and no longer indicate a potential or actual emergency
 - Reactor and SNF pool conditions are predictable
 - Reactor heat sink is available and operating
 - Integrity of power supplies and electrical equipment is sustainable
 - Operable instrumentation for plant status and radiation monitoring exists
- **PMT -**
 - Plant parameters are known and no longer indicate a potential or actual emergency
 - Radioactivity releases have been terminated and the source of radioactivity release is under control
 - Confidence that changes to protective actions are unlikely for both US citizens in Japan and for U.S. territories.
- **LT -**
 - Plant parameters are known and no longer indicate a potential or actual emergency
 - Quick-turnaround advice from the interagency to the Embassy and Japanese Government is no longer urgently needed.

(b) Reducing NRC Japan on-site team presence

- **Support to Japanese response and recovery actions**
 - NRC's commitments to USAID Team in Japan have been met.
 - USA consortium Established and fully functioning to support TEPCO (NRC facilitating, but lead role to be transferred - e.g., to another Government agency or INPO).
 - Confidence that changes to protective actions for US citizens in Japan are unlikely.

Landau, Mindy

) **From:** Landau, Mindy
Sent: Tuesday, March 22, 2011 7:45 AM
To: Muessle, Mary
Subject: FW: Two suggestions: No.1 for Fukushima plant; and No.2 for NRC website

I told Renee to forward these to me for now but we probably should think about where we route these suggestions, particularly if more start coming in.

From: Pedersen, Renee
Sent: Monday, March 21, 2011 2:29 PM
To: Landau, Mindy
Subject: FW: Two suggestions: No.1 for Fukushima plant; and No.2 for NRC website

Mindy,

Clearly these suggestions don't fall in my area. Any ideas where I can recommend that he send them? Ops Center, OPA, OEDO, suggestion program?

Renée

From: DifferingViews Resource
Sent: Friday, March 18, 2011 3:25 PM
To: Pedersen, Renee
Subject: FW: Two suggestions: No.1 for Fukushima plant; and No.2 for NRC website

From: Kidwell, Michael
Sent: Friday, March 18, 2011 3:24:44 PM
To: DifferingViews Resource
Subject: Two suggestions: No.1 for Fukushima plant; and No.2 for NRC website
Auto forwarded by a Rule

I didn't know quite where else to send these:

1. My idea involves the ability to get large quantities of water where it is needed. I have watched helplessly as the seemingly midget fire trucks fight valiantly to do the task. Could it be possible to use a different piece of equipment? The vehicle I am thinking of is a cement mixer truck with the long booms that they use to place concrete at many construction sites. When the clean out the mixer they use copious quantities of water and the boom could direct it onto the appropriate place in the reactor buildings or spent-fuel pools.
2. In a vein similar to one of the questions posed in today's all-hands meeting, I think our website might also include a place for the registration of suggestions (beyond the nuclear technical) that might aid or spawn others that will aid in solving the problems of how to get water into the target reactors and spent fuel pools in sufficient quantities. I know we lack much of the information that our technical teams and, of course, our Japanese brothers have but I would be remiss for not at least offering a small suggestion.

2/16/11

Best regards,

Mike Kidwell

Mitchell, Mark

From: Mitchell, Mark
Sent: Tuesday, March 22, 2011 1:34 PM
To: Barker, Allan
Subject: FW: REMP Reporting Levels and Fukushima

From: Dickson, Billy
Sent: Monday, March 21, 2011 12:58 PM
To: Go, Tony; Phalen, Martin; Mitchell, Mark; Cassidy, John
Subject: FW: REMP Reporting Levels and Fukushima

FYI

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

refer to HQ

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 LEVELS (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

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Health Physicist
Nuclear Regulatory Commission
301-415-4039
Richard.Conatser@NRC.gov