

Group AL

(Records Withheld
In Part)

From: Brenner, Eliot
To: Hayden, Elizabeth
Subject: Pumper and rad data
Date: Friday, March 25, 2011 6:45:35 AM

It now appears we have a good history of the pump ... Finally

Also, I was told by someone working the RIS on rad reporting that it would say we will ask plants to report to us and we will forward data to EPA. We just need to be sure EPA puts context to it.

Eliot Brenner

Director, Office of Public Affairs

US Nuclear Regulatory Commission

Protecting People and the Environment

301 415 8200

C: (b)(6)

Sent from my Blackberry

AL/1

From: Brenner, Eliot
To: Hayden, Elizabeth
Subject: Re: Media Contact
Date: Friday, March 25, 2011 9:02:02 AM

Maybe mike brown or skeen?
Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200

C (b)(6)
Sent from my Blackberry

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

From: Hayden, Elizabeth
To: Brenner, Eliot
Sent: Fri Mar 25 08:31:36 2011
Subject: FW: Media Contact

So who do we put in front of a camera if asked?

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

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

From: Skeen, David
Sent: Friday, March 25, 2011 7:55 AM
To: Weber, Michael; Dudes, Laura; Hayden, Elizabeth; Hannah, Roger; Ruland, William
Cc: Brenner, Eliot; Brown, Frederick
Subject: RE: Media Contact

I agree completely with Mike and Laura. This was truly a team effort. Everyone pitched in to get it done.

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

From: Weber, Michael
Sent: Friday, March 25, 2011 7:54 AM
To: Dudes, Laura; Skeen, David; Hayden, Elizabeth; Hannah, Roger; Ruland, William
Cc: Brenner, Eliot; Brown, Frederick
Subject: Response - Media Contact

...And Bill Cook on our team in Japan has worked tirelessly to make it happen.

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

From: Dudes, Laura
To: Skeen, David; Hayden, Elizabeth; Weber, Michael; Hannah, Roger; Ruland, William
Cc: Brenner, Eliot; Brown, Frederick
Sent: Fri Mar 25 03:21:23 2011
Subject: Re: Media Contact

In addition, Scott Sloan from the liaison team worked tirelessly to coordinate with Bechtel,USFJ,USAID

AL/2

and the team in Tokyo-he was instrumental in moving this from concept to reality.

Laura Dudes
Sent via Blackberry

(b)(6)

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

From: Skeen, David
To: Hayden, Elizabeth; Weber, Michael; Hannah, Roger
Cc: Brenner, Eliot; Brown, Frederick; Dudes, Laura
Sent: Thu Mar 24 22:28:50 2011
Subject: RE: Media Contact

Beth,

I was on shift with Mike Weber the night we talked with the NRC-Tokyo team, and Mike and I jotted down the specifications for the pumping equipment that would be needed to get water from the ocean to the reactor buildings, as the NRC Tokyo team described what was needed. Then, we discussed it with the RST members, and it was Mike Brown who developed the first rough sketch that we provided to Bechtel.

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

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 5:32 PM
To: Weber, Michael; Hannah, Roger
Cc: Brenner, Eliot; Skeen, David; Brown, Frederick; Dudes, Laura
Subject: RE: Media Contact

Are there any names of those on the RST that we could identify for helping with the design?

Beth

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

From: Weber, Michael
Sent: Tuesday, March 22, 2011 9:45 PM
To: Hannah, Roger
Cc: Brenner, Eliot; Hayden, Elizabeth; Skeen, David; Brown, Frederick; Dudes, Laura
Subject: Response - Media Contact

Thanks, Roger. Glad to have you here for a few days to participate in the response. This is a "good government" story. Our team here in Rockville worked with our team in Tokyo and their Japanese counterparts last weekend to sketch out a solution to provide sustained cooling to the spent fuel pools at Fukushima-Daiichi. The Reactor Safety Team in Rockville fleshed out the design early last week and then reached out to INPO, GE, Bechtel, and others to further refine and peer review the design. Bechtel identified the closest components of the system and other parts that could be promptly fabricated and shipped to Japan from Australia. We then worked it with the U.S. Embassy in Japan, our team in Tokyo, US AID, US military (Pacific Command), and the Australian Air Force to procure and transport the system to Japan. Industry and multiple governments working together to solve a problem and protect people!

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

From: Hannah, Roger
To: Weber, Michael; Brenner, Eliot; Hayden, Elizabeth
Sent: Tue Mar 22 19:23:55 2011
Subject: RE: Media Contact

I've contacted Ed Rogers at Bechtel and given him my contact information so the Bechtel PR folks can contact us and we can discuss any media interaction.

Roger

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

From: Weber, Michael
Sent: Tuesday, March 22, 2011 7:22 PM
To: Brenner, Eliot; Hayden, Elizabeth; Hannah, Roger
Subject: FYI - Media Contact

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

From: Cook, William
To: Monninger, John; Weber, Michael; LIA02 Hoc; RST01 Hoc; LIA03 Hoc
Cc: Casto, Chuck; Dorman, Dan; 'YoungJM@state.gov' <YoungJM@state.gov>
Sent: Tue Mar 22 18:48:44 2011
Subject: RE: Media Contact

Just so everyone knows, there were about a dozen media types on the Flight Line observing the second C17 off-load operations at Yokota. I was not interviewed, but there were a lot of videos and pictures being taken while we were talking with Admiral Gregory.

Bill

From: Monninger, John
Sent: Tuesday, March 22, 2011 6:16 PM
To: Weber, Michael; LIA02 Hoc; RST01 Hoc; LIA03 Hoc
Cc: Casto, Chuck; Dorman, Dan; 'YoungJM@state.gov'; Cook, William
Subject: Fw: Media Contact

ET

See below regarding interest in US/NRC/INPO/Bechtel activities in Australia. Do you want coordinated response with NRC OPA with the Embassy here?

John M

John Monninger

(b)(6)

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

From: Rogers, Ed <CEROGER1@Bechtel.com>
To: Young, Joseph M <YoungJM@state.gov>; Merchant, Ned <cemercha@bechtel.com>;
(b)(6)
(b)(6); Monninger, John
Cc: Thomas, Eugene <ewthomas@bechtel.com>; Cook, William; (b)(6)
(b)(6); Daw, Martyn <mndaw@bechtel.com>
Sent: Tue Mar 22 14:46:47 2011
Subject: Media Contact

Joe, I am sending this to you because I am not sure who to reach out to on the following request. That said, anyone on the distribution can answer.

Our folks in Australia have apparently been contacted by several media sources (they used the words inundated) making inquiries on the work we are doing for you all. We would appreciate an appropriate media contact to forward these calls too.

Please let me know soonest.

Ed Rogers

Office (240) 379-3179

Cell (b)(6)

From: Kammerer, Annie
To: Burnell, Scott; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc
Cc: Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Chokshi, Niles; Munson, Clifford; Karas, Rebecca; Ake, Jon; Uhle, Jennifer; Uselding, Lara; Hayden, Elizabeth; Dricks, Victor; Warnick, Greg
Subject: Re: Seismic Q&As March 22th 10pm update
Date: Wednesday, March 23, 2011 11:55:52 AM

Yes. But, It's consistent with both the NOAA estimates with the 5m bathymetric line and presentations on the tsunami assessments that I've seen TECPO make, and also their plant elevations.

Cheers,
Annie

Sent from an NRC blackberry
Annie Kammerer
mobile (b)(6)
bb (b)(6)
annie.kammerer@nrc.gov

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

From: Burnell, Scott
To: Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc
Cc: Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Chokshi, Niles; Munson, Clifford; Karas, Rebecca; Ake, Jon; Uhle, Jennifer; Uselding, Lara; Hayden, Elizabeth; Dricks, Victor; Warnick, Greg
Sent: Wed Mar 23 05:45:06 2011
Subject: Re: Seismic Q&As March 22th 10pm update

Thanks Annie!

We'll give these a once-over and get them posted today.

It probably goes without saying, but NEI quoting TEPCO isn't the sort of "definitive" info we should be repeating outside the agency. They could well be right, but it's always better to be able to refer to the direct source instead of going through intermediaries. Thanks.

Scott

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

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

From: Kammerer, Annie
To: Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc
Cc: Howe, Allen; Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael; Orders, William; Santiago, Patricia; Snodderly, Michael; Baggett, Steven; Sosa, Belkys; Davis, Roger; Franovich, Mike; Castleman, Patrick; Sharkey, Jeffrey; Boska, John; Ma, John; Tegeler, Bret; Patel, Pravin; Shams, Mohamed; Morris, Scott; Brenner, Eliot; Harrington, Holly; Seber, Dogan; Ledford, Joey; Johnson, Michael; Virgilio, Martin; Holahan, Vincent; Bergman, Thomas; Webb, Michael; Manoly, Kamal; Khanna, Meena; Screnci, Diane; Thomas, Eric; Nguyen, Quynh; Meighan, Sean; FOIA Response.hoc Resource; Bensl, Michelle
Sent: Wed Mar 23 03:14:31 2011
Subject: Seismic Q&As March 22th 10pm update

All,

Attached please find an updated set of Q&As. I also included some new Q&As for SONGS and Diablo Canyon, just in case anyone is interested.

This version has an expanded set of definitions and new sections on station blackout, spent fuel, flooding and some other topics. It also has fewer duplicate questions.

Let me also pass on a tidbit of info. According to TEPCO (via an NEI press release), the tsunami at Fukushima was 14 meters and the design tsunami llevel was 5.7 meters. The reactors and backup power sources were at 10 meters and at 13 meters. Ouch.

Cheers,

AL/3

Annie

From: Kammerer, Annie

Sent: Sunday, March 20, 2011 11:00 PM

To: Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc

Cc: Howe, Allen; Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael; Orders, William; Santiago, Patricia; Snodderly, Michael; Baggett, Steven; Sosa, Belkys; Davis, Roger; Franovich, Mike; Castleman, Patrick; Sharkey, Jeffrey; Boska, John; Ma, John; Tegeler, Bret; Patel, Pravin; Shams, Mohamed; Morris, Scott; Brenner, Eliot; Harrington, Holly; Seber, Dogan; Ledford, Joey; Johnson, Michael; Virgilio, Martin; Holahan, Vincent; Bergman, Thomas; Webb, Michael; Manoly, Kamal; Khanna, Meena; Screnci, Diane; Thomas, Eric; Nguyen, Quynh; Meighan, Sean; FOIA Response.hoc Resource; Bensi, Michelle
Subject: Seismic Q&As March 20th 8pm update

All,

Here's today's version. It includes updates on related topics for tomorrow's briefing. Also, some of the sections have been streamlined and some (though not all) of the answers have been updated.

The biggest news from the seismic team's perspective is that starting tomorrow a very bright young risk analyst (Michelle Bensi) who recently joined us from UC Berkeley (my beloved alma mater) will be helping with the compilation of this document. That will allow our team to spend more time cleaning and streamlining it; which inevitably will make it more user friendly...and shorter! Starting with tomorrow's version her name will start to show up on the front.

Best of luck to everyone with the briefing tomorrow!

Annie

From: Kammerer, Annie

Sent: Saturday, March 19, 2011 9:00 AM

To: Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc

Cc: Howe, Allen; Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael; Orders, William; Santiago, Patricia; Snodderly, Michael; Baggett, Steven; Sosa, Belkys; Davis, Roger; Franovich, Mike; Castleman, Patrick; Sharkey, Jeffrey; Boska, John; Ma, John; Tegeler, Bret; Patel, Pravin; Shams, Mohamed; Morris, Scott; Brenner, Eliot; Harrington, Holly; Seber, Dogan; Ledford, Joey; Johnson, Michael; Virgilio, Martin; Holahan, Vincent; Bergman, Thomas; Webb, Michael; Manoly, Kamal; Khanna, Meena; Screnci, Diane; Thomas, Eric; Nguyen, Quynh; Meighan, Sean; FOIAResource.hoc@nrc.gov
Subject: Seismic Q&As March 19th 8am update

All,

Here is today's updated version. Lot of new fact sheets have been prepared for various briefings and for Monday's public meeting!

However, the big news of the day is that we just sent off a 6 page, 22 question, much better edited version for a public Q&A set. It's all in OPA's capable hands now. I think it's pretty good...but then I'm biased.

Cheers,
Annie

From: Kammerer, Annie

Sent: Friday, March 18, 2011 6:51 AM

To: Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc

Cc: Howe, Allen; Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael; Orders, William; Santiago, Patricia; Snodderly, Michael; Baggett, Steven; Sosa, Belkys; Davis, Roger; Franovich, Mike; Castleman, Patrick; Sharkey, Jeffrey; Boska, John; Ma, John; Tegeler, Bret; Patel, Pravin; Shams, Mohamed; Morris, Scott; Brenner, Eliot; Harrington, Holly; Seber, Dogan; Ledford, Joey; Johnson, Michael; Virgilio, Martin; Holahan, Vincent; Bergman, Thomas; Webb, Michael; Manoly, Kamal; Khanna, Meena; Screnci, Diane; Thomas, Eric; Nguyen, Quynh; Meighan, Sean
Subject: RE: Seismic Q&As March 18th 5am update

All,

Please see the updated version of the Seismic Q&As.

Among today's highlights:

*We added a Terms and Definitions section at the end of the document. (We know that an acronyms list would be helpful too, but it will have to wait a little)

*The "additional information" section has been split into tables, plots, and fact sheets

*A high-level draft fact sheet on NRC's seismic regulations has been added

*We added a section to track outstanding questions that have come in from congress. This will support those who get the tickets in the short terms (most likely NRR). The questions will be moved to the appropriate sections long term (as long as they are not duplicates.)

I'm sure we all agree this has been a crazy week!. We're hoping that the weekend workload is lighter (if only because we won't get as many email from in house) and we can clean up this document and fill in some of the missing answers in preparation for the news story changing. We're trying hard to get out in front of the next wave.

Cheers,
Annie

From: Kammerer, Annie

Sent: Thursday, March 17, 2011 2:36 AM

To: Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc

Cc: Howe, Allen; Nelson, Robert; Stutzke, Martin; Giltter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Giltter, Joseph; Howe, Allen; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Munson, Clifford; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Murphy, Andrew; Pires, Jose; Hogan, Rosemary; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael; Orders, William; Santiago, Patricia; Snodderly, Michael; Baggett, Steven; Sosa, Belkys; Davis, Roger; Franovich, Mike; Castleman, Patrick; Sharkey, Jeffrey; Boska, John; Ma, John; Tegeler, Bret; Patel, Pravin; Shams, Mohamed; Morris, Scott; Brenner, Eliot; Harrington, Holly; Seber, Dogan; Ledford, Joey; Johnson, Michael; Virgilio, Martin; Holahan, Vincent; Bergman, Thomas

Subject: Seismic Q&As March 17th 2am update

All,

As promised, a sharepoint site has been set up where our friends in NRR will be posting the latest version of the Seismic Q&A document on an ongoing basis. If someone would prefer to use the sharepoint site, instead of being on this distribution list, please let me know...

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

This latest update has a number of new questions (not many with answers today, but we are working hard). A high priority question we are working on is "how many plants are near a mapped active fault". We're focusing on anything within 50 miles. We're also pulling relevant questions from the congressional inquiries we just received; and will also give these high priority to support any needs by NRR.

Many new figures and some draft fact sheets have added to the "additional information" section. These include the NRO half of a tsunami fact sheet...a description of the tsunami research is still to come from RES.

Some good news: Yesterday's version seems to have been widely forwarded around the agency. So, we are also starting to get some excellent questions from staff looking forward. This is allowing us to feel that we are finally getting out in front of things to a small degree. Also, our team has grown and we now have someone acting as source of seismic expertise for the 11pm to 7 am shift. This means that we now have seismic experts available to the RST and OPA at the Op Center 24 hours, with 2 people during the day. That extra support is allowing us to get this out at least an hour earlier today ☺

We are continuing to compile the questions that come in and update the seismic Q&A document. If you have suggested changes, or want to provide missing answers, please forward them to me for compilation.

This is a living document and will be updated daily in the foreseeable future.

Happy St. Paddy's Day. May the world (especially our friends in Japan) have the luck of the Irish today.

Cheers,
Annie

Dr. Annie Kammerer, PE
Senior Seismologist and Earthquake Engineer
US Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Washington DC 20555

(b)(6)

mobile
BB

From: Kammerer, Annie
Sent: Tuesday, March 15, 2011 3:41 AM
To: Hiland, Patrick; Skeen, David
Cc: Howe, Allen; Nelson, Robert; Stutzke, Martin; Glitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Kammerer, Annie; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Glitter, Joseph; Howe, Allen; Case, Michael; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Munson, Clifford; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Murphy, Andrew; Pires, Jose; Hogan, Rosemary; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael
Subject: latest version of Q&As

All,

This is the first draft of the seismic-specific Q&As. It is pretty rough and there are many answers still missing, but people have contributed a lot and we thought it may be useful for many people trying to answer questions coming in.

We are continuing to compile the questions that come in and update the seismic Q&A document. If you have suggested changes, or want to provide missing answers, please forward them to me for compilation.

This is a living document and will be updated daily in the foreseeable future.

Annie

Dr. Annie Kammerer, PE
Senior Seismologist and Earthquake Engineer
US Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Washington DC 20555

(b)(6)

mobile
BB

From: DE BEULE Karina
To: wgpcnews@nea.fr
Subject: RE: [wgpcnews] Webbcast on WENRAs press conference
Date: Wednesday, March 23, 2011 12:38:12 PM

Hi Risto, thank you very much and really a lovely language you have :-)) Are you surviving, here the media attention only diminishes slightly, positive, but cynical point is that they discover our activities and report about them.

Kind regards,
karina



federale agentschap voor nucleaire controle

agence fédérale de contrôle nucléaire

Het FANC is ISO 9001:2000 gecertificeerd - L'AFCN est certifiée ISO 9001:2000.

Aub, denk aan het milieu voordat u deze mail uitprint.
Svp. pensez à notre environnement avant d'imprimer ce mail.

Disclaimer (Fr) - Disclaimer (NL)

Van: Risto.Isaksson@stuk.fi [mailto:Risto.Isaksson@stuk.fi]

Verzonden: mercredi 23 mars 2011 17:28

Aan: wgpcnews@oecd-nea.org

Onderwerp: [wgpcnews] Webbcast on WENRAs press conference

Dear friends,

WENRA (Western European Nuclear Regulators Association) had a two day meeting in Helsinki 22 and 23 of March. After the meeting a press conference was organized.

Attached is a link to the recorded webcast of the conference:

http://qsb.webcast.fi/s/stuk/stuk_2011_0323_tiedotustilaisuus/

The first half of the one hour recording is in English. WENRA's chair, Director General of STUK, Mr. Jukka Laaksonen and Chairman of the French nuclear safety Authority (ASN) Mr. André-Claude LACOSTE speak about current issues like WENRA statement on the Fukushima npp accident and the first proposal about European "stress test" on nuclear power plants and answer journalists questions.

The language of the second half or the press conference is Finnish. If you wonder.

Best Regards

Risto Isaksson

Risto Isaksson

Head of Public Communication

AL/4

Tel. +358 9 759 88 208

Fax +358 9 3738

risto.isaksson@stuk.fi

RADIATION AND NUCLEAR SAFETY AUTHORITY

P.O. Box 14, FIN-00881 Helsinki, Finland

www.stuk.fi

From: Breskovic, Clarence
To: Breskovic, Clarence
Subject: GNOSIS News 2011-03-23
Date: Wednesday, March 23, 2011 1:00:23 PM

For Official Use Only

Energy Policy

Germany set to abandon nuclear power for good

AP, 2011-03-23

Germany is determined to show the world how abandoning nuclear energy can be done. The world's fourth-largest economy stands alone among leading industrialized nations in its decision to stop using nuclear energy because of its inherent risks. It is betting billions on expanding the use of renewable energy to meet power demands instead. The transition was supposed to happen slowly over the next 25 years, but is now being accelerated in the wake of Japan's Fukushima Dai-ichi nuclear plant disaster, which Chancellor Angela Merkel has called a "catastrophe of apocalyptic dimensions." Berlin's decision to take seven of its 17 reactors offline for three months for new safety checks has provided a glimpse into how Germany might wean itself from getting nearly a quarter of its power from atomic energy to none. And experts say Germany's phase-out provides a good map that countries such as the United States, which use a similar amount of nuclear power, could follow. The German model would not work, however, in countries like France, which relies on nuclear energy for more than 70 percent of its power and has no intention of shifting.

Italy plans one-year pause on nuclear power

ROME, March 22 (Reuters) - Italy's government will announce a one-year moratorium on site selection and building of nuclear power plants following the crisis at a Japanese plant, Industry Minister Paolo Romani said on Tuesday. "Tomorrow the cabinet will announce the declaration of a one-year moratorium on procedures for installing and identifying nuclear sites," Romani told reporters at the margins of a Senate hearing. The government said last week it needed time to reflect on plans to relaunch its nuclear power sector in light of the accident at the Japanese atomic plant triggered by an earthquake and tsunami.

Polish Prime Minister Says Nuclear Power Needs Public Support

WARSAW, March 23, 2011 (AFP) -- Widespread public support is crucial to Poland's plan to build its first nuclear power plants, Prime Minister Donald Tusk said Wednesday [23 March], after pledging to press on with an atomic energy drive. "Without public backing, this kind of plan has no meaning. But I'm convinced that such backing -- of course for modern, safety-guaranteed nuclear plants -- is strong in Poland," Tusk told reporters. Last week, Tusk's centre-right coalition said it was sticking to its target of opening the first of two planned 3,000-megawatt plants by 2020, despite renewed safety concerns raised by the crisis in Japan. But in a nod to atomic power's doubters Tusk said Wednesday he could call a referendum -- as demanded by the left-wing parliamentary opposition and environmentalists.

Nuclear To Stay, Says EU Despite Battle Over Safety Testing

BRUSSELS, March 23, 2011 (AFP) -- Nuclear energy is here to stay so European Union leaders need to spell out clearly how to revamp safety guidelines at a key summit, the bloc's energy commissioner said Wednesday [23 March]. "We are looking for clear instructions from EU leaders meeting on Thursday and Friday," Guenther Oettinger told a hearing of European Parliament lawmakers, after diplomats revealed deep divisions on reactor stress tests. The German commissioner said the radiation threat from the Fukushima No.1 reactor in Japan, severely damaged after an earthquake and tsunami, was "still dangerous" with problems "far from being mastered." Nevertheless, some "30 percent of electricity in Europe is furnished by nuclear power plants and nuclear will remain a supply source in the short, medium and long term," he underlined.

Germany: Merkel: The Sooner Germany Abandons Nuclear Power, the Better

FRANKFURT, March 23, 2011 (AFP) -- Chancellor Angela Merkel said Wednesday [23 March] the sooner Germany abandoned nuclear power the better, although the energy source was still needed as a bridge technology for Europe's top economy. The lesson Germany should learn from the nuclear crisis in Japan is "the earlier the exit, the better. Nuclear technology is a transitory technology," Merkel told a financial conference here. Merkel also said it was good that the European Union had decided to hold stress tests for nuclear power stations to ensure they could resist earthquakes, tsunamis and terrorist attacks.

Government & Public Sector

No Fears About Ghana's Nuclear Program

www.ghanaweb.com, 2011-03-23

As Japan counts its losses following the earthquake-triggered nuclear disaster, authorities at the Ghana Atomic Energy Commission (GAEC) say the country's nuclear project is safe and as such poses no threat to the public. The Deputy Director-General of the Commission, Prof. Yaw Serfor-Armah assured the public in an interview with the Public Agenda at Kwabenya, the location of Ghana's nuclear (research) reactor, last Wednesday that by geological studies the earthquake recently experienced in Japan is not a phenomenon of the Atlantic Coast. That notwithstanding, he said, the Commission together with other state agencies has put together an emergency response team in view of the fact that occasionally the country experiences earthquakes and tremors.

ALIS

Reactors

Japan: Fukushima Cooling Circuits May Be Damaged, France's ASN Says
Bloomberg, 2011-03-23

Getting pumps and cooling circuits working at the crippled Fukushima Dai-Ichi nuclear power plant in Japan may take days even after power is restored, according to the French nuclear watchdog. "There will be a risk of creating short-circuits in material that was underwater," Marie-Pierre Comets, a commissioner at the Paris-based Autorite de Surete Nucleaire, said at a press conference today. "There are a lot of tests on the cooling systems that have to be carried out." Seawater used to cool the reactors and spent-fuel pools may have caused corrosion in cooling equipment and salt could have crystallized in some places, hindering the ability of water to cool fuel rods, Comets said.

Safety

Japan: U.S. Department of Energy Releases Radiation Monitoring Data from Fukushima Area
energy.gov, 2011-03-22

Today the U.S. Department of Energy released data recorded from its Aerial Monitoring System as well as ground detectors deployed along with its Consequence Management Response Teams. Since arriving in Japan, NNSA teams have collected and analyzed data gathered from more than 40 hours of flights aboard Department of Defense aircraft and thousands of ground monitoring points. That data has been collected, analyzed and posted on the Department's website at www.energy.gov/japan2011.

Download data here: http://energy.gov/news/documents/AMS_Data_for_USDoS__March22_1530_JLC.pptx

Global Nuclear Open Source Information Service (GNOSIS) 2011-03-23

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

From: Couret, Ivonne
To: Hayden, Elizabeth
Subject: MEDIA - Westchester Co. Journal - NY Gov Mtg
Date: Wednesday, March 23, 2011 1:39:53 PM
Importance: High

Here is another one...

Ivonne L. Couret
Public Affairs Officer
Office of Public Affairs
Media Desk
opa.resource@nrc.gov
301-415-8200

Visit our online photo gallery. Incorporate graphics and photographs to tell your story!
<http://www.nrc.gov/reading-rm/photo-gallery/>

2010-2011 Information Digest - Where you can find NRC Facts at a Glance
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

From: Akstulewicz, Brenda
Sent: Wednesday, March 23, 2011 12:29 PM
To: Couret, Ivonne
Subject: Westchester Co. Journal

John Golden

914-358-0748

jgolden@westfairinc.com

Info related to meeting with Cuomo's office

Brenda Akstulewicz
Administrative Assistant
Office of Public Affairs
301-415-8209
brenda.akstulewicz@nrc.gov



AL18

From: Hannah, Roger
To: Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly
Subject: FW: Photos
Date: Wednesday, March 23, 2011 1:59:03 PM

Link to more photos of Bechtel equipment offload in Japan...

From: ET05 Hoc
Sent: Wednesday, March 23, 2011 1:54 PM
To: Hannah, Roger
Subject: FW: Photos

From: LIA06 Hoc
Sent: Wednesday, March 23, 2011 1:08 PM
To: ET05 Hoc
Subject: FW: Photos

Marissa.. this may be of interest to ET.. Mike

Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: Sloan, Scott
Sent: Wednesday, March 23, 2011 12:58 PM
To: LIA06 Hoc
Subject: FW: Photos

Mike,

Here is a link to some photos taken during offload of one of the C-17s. Please note that there are 2 TV cameras shooting the offload – not sure how interested PAO would be to know that. Please let me know if you need me to take any action.

<http://www.photoshop.com/users/dylanmonaghan/albums/24a3cdd9d6fc40d99b64ba13ae0be080>

Thanks,

Scott Sloan

Project Manager
US Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Research & Test Reactor Projects Branch
(301) 415-1619

From: Hart, James V
Sent: Wednesday, March 23, 2011 03:28 PM

Here are some photos of the off-load in Japan. More importantly, here is a quote from Bill Cook of the NRC that sums up the success of the mission and a little payback for the hard work;

"Just returned from Yokota AFB and believe it was a huge success. TEPCo seemed enthusiastic in their very reserved way, but clearly recognized the capacity, flexibility, and redundancy of the equipment provided. In addition, the Aussies (three representatives from Resource Equipment LTD) were outstanding in presenting and explaining the multiple uses and capabilities of their equipment. They have made themselves available to set-up and train whom ever TEPCo would like operating the equipment. I believe their availability is approximately one week or so. With respect to the equipment, it is much more capable than the simple one-line sketch depicts, and how. In my opinion, Uncle Sam received his money's worth and

AL17

more."

Regards,

James Hart
Global Procurement Operations
Mining and Metals - Brisbane Australia
Tel: +61-07-3167-5855
Mob: (b)(6)
Mailstop: Wickham/3.79

From: Chris Whale [mailto:CWhale@rel.com.au]
Sent: Wednesday, March 23, 2011 1:32 PM
To: Hart, James V
Subject: Fwd: Photos

Off loading in Japan

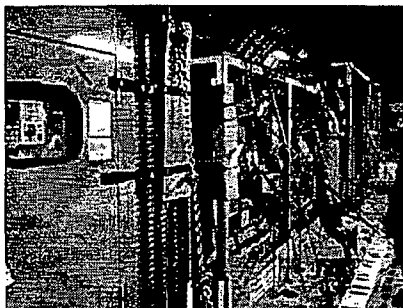
Regards

Chris Whale
Begin forwarded message:

From: "Mark Lagemann" <MLagemann@rel.com.au>
Date: 23 March 2011 10:57:53 AM GMT+10:00
To: "Chris Whale" <CWhale@rel.com.au>, "Jamie Cullen" <JCullen@rel.com.au>
Subject: Fwd: Photos

Sent from my iPhone

Photos of the Bechtel Pumps are available online. Please click the link below.



**Australian C-17 Delivery of
Bechtel Pumps. Click below to
see images from 22 Mar 2011.**

[View album](#)

Bechtel Contracted Pumps from Perth flown in on Australian C-17 as
photographed on 22 Mar 2011 at Yokota Air Base.

D.Monaghan sends

Dylan Monaghan, Lt Col, USAF

US Embassy Liaison
At Bilateral Joint Operations Coordination Center
Operation Tomodachi
USFJ Japan, Yokota Air Force Base

(b)(6)

DSN 225-4250

DSN 225-4329

From: Shoop, Undine
To: Hayden, Elizabeth
Subject: FW: Action: REMP Reporting Levels and Fukushima
Date: Wednesday, March 23, 2011 4:38:31 PM
Attachments: image001.png

Beth and Scott,

Do you have any thoughts on this? I'm not sure that we should make it Japan specific as suggested or if we should keep this at a high level. What would be your recommendation based on the questions you have been receiving?

Thanks,
Undine

From: Nelson, Robert
Sent: Wednesday, March 23, 2011 8:11 AM
To: Shoop, Undine
Cc: Heck, Jared; Logaras, Harral; Conatser, Richard; Pederson, Cynthia; Reynolds, Steven; Barker, Allan; Westreich, Barry; Markley, Michael; Oesterle, Eric; Meighan, Sean; Nguyen, Quynh
Subject: Action: REMP Reporting Levels and Fukushima

See below. Can you take this for action? If so, please keep me advised of your plans to revise it.

R. A. Nelson

Robert A. Nelson
NRR External Communications Coordinator, Japan Events
Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation



E-mail: robert.nelson@nrc.gov | Office: (301) 415-1453 | Cell: (b)(6) | Fax: (301) 415-2102

From: Barker, Allan
Sent: Tuesday, March 22, 2011 4:36 PM
To: Nelson, Robert
Cc: Heck, Jared; Logaras, Harral; Conatser, Richard; Pederson, Cynthia; Reynolds, Steven
Subject: FW: REMP Reporting Levels and Fukushima

Mr. Nelson,

My name is Allan Barker, the Region III Government Liaison Officer. I wanted to share some thoughts about the communication value that I believe exists for the agency on the regulatory environmental monitoring program that is required of licensees. The following email from Richard Conatser to regional HP branch chiefs clearly identifies a need for awareness during inspections of licensee environmental monitoring programs. In addition,

AL18

I offer the following link to our public web site for the fact sheet issued in February 2002, on "Environmental Monitoring."

<http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/env-monitoring.html>

What's missing in content for the fact sheet is two-fold. First, a perspective on the detection capability of licensee REMP sampling stations for the Fukushima event, and second, the REMP sampling stations are another defense in depth barrier to collect data to protect the health and safety of the public and the environment.

As the Region III Government Liaison Officer, I recommend that the Environmental Monitoring fact sheet be revised so we can continue to communicate a safety message in the near-term from field data that is collected and analyzed across the nation's reactor sites.

Regards,

Allan Barker
Government Liaison Officer
NRC Region III
(630) 829-9660

From: Conatser, Richard
Sent: Monday, March 21, 2011 12:18 PM
To: Werner, Greg; Henderson, Pamela; Dickson, Billy; Bonser, Brian
Cc: Garry, Steven; Pedersen, Roger; Jimenez, Manuel; Clemons-Webb, Candace; Shoop, Undine
Subject: REMP Reporting Levels and Fukushima

All,

You may want to pass this along to your Inspectors who will be on inspections during the next couple of months.

The NRC's REMP REPORTING LEVELs may be exceeded as a result of plumes from Fukushima passing over REMP sampling stations. This email contains some unit conversions for your use. The table below shows the default NRC REPORTING LEVEL for I-131 in REMP samples listed in NUREG-1301 (PWRs) and NUREG-1302 (BWRs). It also converts the REPORTING LEVELs to those units commonly used at the plant sites.

I-131 Reporting Level in NUREG 1301 and NUREG-1302

	I-131 Units	I-131 Units
Drinking Water	2 pCi/L	2E-09 uCi/ml
Non-Drinking Water	20 pCi/L	2E-08 uCi/ml
Air	0.9 pCi/m3	9E-13 uCi/cc

These are default values, and the site-specific values will be in the licensees' ODCMs. The REMP REPORTING LEVELs may be exceeded as a result of plumes from Fukushima passing over REMP sampling stations. The REMP results may vary as various

puffs/plumes traverse the US. **If** a nuclide concentration exceeds the REPORTING LEVES (averaged over a calendar quarter), the licensee may be required to report the data to the NRC within 30 days. The licensee should take the actions listed in their ODCM.

Because the I-131 (and possibly other radionuclides) from Fukushima will elevate the "background," it will reduce the licensee's ability to differentiate releases from their site. Strong data evaluation and analyses are appropriate at all times, and are particularly applicable at this time. This is also a good verification of licensee's analytical detection capabilities.

Best Regards,

Richard L. Conatser

Health Physicist

Nuclear Regulatory Commission

301-415-4039

Richard.Conatser@NRC.gov

From: Hayden, Elizabeth
To: "nadelm@georgetown.edu"
Subject: FW: Speaking Invitation for GAI program
Date: Wednesday, March 23, 2011 6:44:00 PM

Mark, Hopefully this is all you need to introduce me:

Currently Senior Policy Advisor to Public Affairs Director where she provides public affairs advice and guidance to the Commission and senior agency officials; develops key communication strategies that contribute to fostering public confidence.

Represents NRC in the international Nuclear Energy Agency group on public communications

Has worked in the Office of Public Affairs for over 20 years

Has been with NRC almost since its inception in 1975, including serving 2 NRC Chairmen.

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

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

From: Brenner, Eliot
Sent: Wednesday, March 23, 2011 5:02 PM
To: nadelm@georgetown.edu
Cc: Hayden, Elizabeth
Subject: RE: Speaking Invitation for GAI program

Mark: Do me a favor -- please remind me of the start time and room number for Elizabeth Hayden, and by this message I'm asking her to send you a few lines about herself you can use for an introduction.

Eliot

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

From: nadelm@georgetown.edu [<mailto:nadelm@georgetown.edu>]
Sent: Wednesday, March 23, 2011 4:54 PM
To: Schmidt, Rebecca; Brenner, Eliot
Cc: Droggitis, Spiros
Subject: Re: Speaking Invitation for GAI program

I can imagine how crazy busy you both must be. Thanks for still helping us out by sending your deputies. I think having them tell how your offices are working the Hill and the press would be great. I look forward to meeting them. They should contact me if they have any questions.

Mark

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

From: Schmidt, Rebecca
To: Schmidt, Rebecca
To: 'nadelm@georgetown.edu'
To: Brenner, Eliot
Cc: Droggitis, Spiros
Subject: RE: Speaking Invitation for GAI program
Sent: Mar 23, 2011 2:51 PM

Mark--I will have to cancel due to the events in Japan. I have 5 hearings now next week. I will send my Deputy, Spiros, to speak in my place.

AL/9

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

From: Schmidt, Rebecca

Sent: Thursday, March 10, 2011 3:33 PM

To: 'nadelm@georgetown.edu'; Brenner, Eliot

Subject: Re: Speaking Invitation for GAI program

Mark,

I'm on the Hill right now. Let me check my calendar tomorrow when I get back to Rockville. I will get back to you.

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

From: Mark <nadelm@georgetown.edu>

To: Schmidt, Rebecca; Brenner, Eliot

Sent: Thu Mar 10 15:31:20 2011

Subject: Speaking Invitation for GAI program

GAI is conducting another program for NRC staff on Capitol Hill from March 29-31, and I'm writing to see if we can again have your participation. Specifically, I'd like you both to speak, as you have in the past, on the roles of the NRC offices of Congressional Affairs and Public Affairs. The session would be on Tuesday, March 29 from 12:30 to 1:30 in Rayburn B-369.

I look forward to hearing from you.

Best regards,

Mark Nadel

--

Mark V. Nadel, Ph.D.

Senior Fellow

Government Affairs Institute at Georgetown University

3333 K Street, NW, Suite 112

Washington, DC 20007

202-333-4838(o) (b)(6) (c)

Sent from my Verizon Wireless BlackBerry

From: Hayden, Elizabeth
To: "wgpcnews@nea.fr"
Cc: "janikowski@poczta.paa.gov.pl"
Subject: RE: Webbcast on WENRAs press conference
Date: Wednesday, March 23, 2011 7:01:00 PM

Thanks! Hope to communicate with you in the not-too-distant-future on ideas for approaching our Social Media and Internet task.

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: Risto.Isaksson@stuk.fi [mailto:Risto.Isaksson@stuk.fi]
Sent: Wednesday, March 23, 2011 12:28 PM
To: wgpcnews@oecd-nea.org
Subject: [wgpcnews] Webbcast on WENRAs press conference

Dear friends,

WENRA (Western European Nuclear Regulators Association) had a two day meeting in Helsinki 22 and 23 of March. After the meeting a press conference was organized.

Attached is a link to the recorded webcast of the conference:

http://qsb.webcast.fi/s/stuk/stuk_2011_0323_tiedotustilaisuus/

The first half of the one hour recording is in English. WENRA's chair, Director General of STUK, Mr. Jukka Laaksonen and Chairman of the French nuclear safety Authority (ASN) Mr. André-Claude LACOSTE speak about current issues like WENRA statement on the Fukushima npp accident and the first proposal about European "stress test" on nuclear power plants and answer journalists questions.

The language of the second half or the press conference is Finnish. If you wonder.

Best Regards

Risto Isaksson

Risto Isaksson

Head of Public Communication

Tel. +358 9 759 88 208

AL/10

Fax +358 9 3738

risto.isaksson@stuk.fi

RADIATION AND NUCLEAR SAFETY AUTHORITY

P.O. Box 14, FIN-00881 Helsinki, Finland

www.stuk.fi

From: ANS.HOC@nrc.gov
Subject: ACTION: Commissioners Assistants Briefing Notification
Date: Wednesday, March 23, 2011 7:41:20 PM
Attachments: [USNRC Earthquake-Tsunami Update.032311.1800EDT.pdf](#)

There will be a Commissioners Assistants Briefing given by the NRC HQ at 2000 (8pm) EDT concerning the Reactor Events in Japan. Call (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter security code (b)(6). You may call 301-816-5164 at this time and follow the voice prompts if you do not wish to receive this notification from our Automatic Notification System.

AL/11

From: ANS.HOC@nrc.gov
Subject: ACTION: Commissioners Assistants Briefing Notification
Date: Thursday, March 24, 2011 6:25:55 AM
Attachments: [NRC Status Update 3.24.11--0600 EDT.pdf](#)

This is the Headquarters Operations Officer. There will be a Commissioners' Assistants Briefing given by NRC HQ at 0730 EDT concerning the Reactor Events in Japan. Call (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter the security code (b)(6), repeat (b)(6). Please respond to the voice prompts indicating whether you plan to participate in the briefing.

AL/12

From: Nieh, Ho
To: OPA Resource; Brenner, Eliot; Hayden, Elizabeth
Subject: Commissioner Ostendorff remarks at Japan Commission meeting
Date: Thursday, March 24, 2011 9:29:36 AM
Attachments: 2011-03-18 Commission Briefing Nuclear Events in Japan.docx

Attached are Commissioner Ostendorff's remarks as prepared for Monday's Commission meeting.

Please note, the he orally delivered an abridged version of this due to the time.

Please make this available on his webpage.

Many thanks.

Ho

Ho Nieh
Chief of Staff
Office of Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
(301) 415-1811 (office)

(b)(6)

 (mobile)
(301) 415-1757 (fax)
ho.nieh@nrc.gov

AL/13

From: Burnell, Scott
To: Anderson, Brian; Hayden, Elizabeth
Cc: Harrington, Holly
Subject: Re: REQUEST for review of draft talking points on GI-199
Date: Thursday, March 24, 2011 10:22:08 AM

Three or four key talking points prior to the full Q+A would be great, thanks!

Sent from an NRC Blackberry

Scott Burnell

(b)(6)

From: Anderson, Brian
To: Hayden, Elizabeth
Cc: Harrington, Holly; Burnell, Scott
Sent: Thu Mar 24 10:12:23 2011
Subject: RE: REQUEST for review of draft talking points on GI-199

Got it, Beth. I'll keep working.

Just to make sure I'm developing what we need, I want to confirm the final product for this...should I develop a Q&A list or a bulleted list of talking points (that includes a timeline and short background)?

Thanks,
Brian

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 9:57 AM
To: Anderson, Brian; Kauffman, John
Cc: Beasley, Benjamin; Burnell, Scott; Harrington, Holly
Subject: RE: REQUEST for review of draft talking points on GI-199

Great start, Brian. See a few general questions that follow and specific comments in red below. I look forward to the rest.

Q So all our reviews/analyses are based on 2004 seismic data from USGS? Is there other updated earthquake information and modeling? Is this data updated every 6 years—2010?

Q Where does the TI inspection fit in and what will be inspected?

Q Should we include a bullet about B5B upgrades to plant equipment/structures to deal with fires and explosions on site?

Q Our GSI-199 seismic reviews have not included assessments of spent fuel storage on site, but we they are designed to same requirements as the plant and we believe they remain safe—correct? How does this apply to the 29 plants?

Q We talk about "preliminary screening reviews" in our Qs and As—where do they fit in

AL/14

here?

Q We've said we are looking at 27 plants in our GSI-199 communication plan. Recent e-mails indicate we are looking at all plants. What is correct?

Q Where will Japan information be factored into the GSI-199 program?

Beth Hayden

From: Anderson, Brian
Sent: Thursday, March 24, 2011 7:12 AM
To: Kauffman, John
Cc: Hayden, Elizabeth; Beasley, Benjamin; Burnell, Scott; Harrington, Holly
Subject: REQUEST for review of draft talking points on GI-199
Importance: High

John --

I'm working on a set of OPA talking points for GI-199. Ben Beasley suggested that I contact you for help. Below, I've developed a rough timeline of GI-199; some items include talking points.

Would you mind double-checking this? Can you point me in the right direction for help with "next steps" information (issuance of a TI; new seismic hazards data) highlighted below?

Thank you,
Brian

GI-199:

-In 2004, preliminary results from United States Geological Survey (USGS) work indicated an increase in the probability of exceeding the Safe Shutdown Earthquake (SSE) for 29 nuclear power sites in the Central and Eastern United States (CEUS).

-The probability increases identified by USGS were primarily due to recent developments in the modeling of earthquake ground motion in the CEUS.

-In May, 2005, NRC recommended a re-examination of generic seismic issues that had been closed in September 2003.

-In June 2005, GI-199, "Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States," was added to NRC's Generic Issues.

-In December 2007, NRC staff completed a limited scope screening analysis [explain what this analysis was and the reason for doing it] .

-The limited scope screening analysis concluded that seismic designs of plants in the CEUS continue to provide adequate safety margins. But because the screening analysis did not include a detailed examination of the safety response? at each individual plant, NRC staff recommended further analysis.

-In February 2008, NRC staff began the Safety and Risk Assessment Stage of examining GI-199. This stage assesses the risk impact at specific plants [the same 29 plants identified in bullet #1?] where the estimated increase in seismic hazard might challenge available seismic margins.

-In September 2010, NRC completed the Safety and Risk Assessment of GI-199. This assessment indicated that no concern exists regarding the current seismic design of operating reactors [and that the overall seismic risk remains low at the 29 plants?]. The design of [all] current operating reactors continues to provide safety margin to withstand potential earthquakes that exceed the original design basis.

-NRC assessment of GI-199 is currently in the Regulatory Assessment Stage. This stage of the GI-199 review will determine whether additional requirements are needed for [all? 29? 27?] operating plants. The NRC does not have all of the information needed to perform the regulatory assessment. Therefore, the NRC will follow the appropriate regulatory process to request operating plants to provide specific information relating to their facilities [is this the Generic Letter?]. Approximately when will the request be issued? And what are we doing in the interim--waiting for something/information?

Next steps

Issuance of Temporary Instruction?

Completion of New consensus seismic hazard estimates for the CEUS (these are a product of a joint NRC, U.S. Department of Energy, USGS, and EPRI project) - available in early 2011?

From: Beasley, Benjamin
Sent: Wednesday, March 23, 2011 1:57 PM
To: Hayden, Elizabeth; Anderson, Brian
Cc: Burnell, Scott
Subject: RE: Need talking points on GSI-199

Beth and Brian,

Annie Kammerer is not the best resource for GI-199. She is able to speak to it from a general seismology perspective, but Dr. Jon Ake was the seismologist supporting the GI-199 Safety / Risk Assessment.

You are also welcome to contact John Kauffman who was the GI-199 project manager for the safety / risk assessment. He can coordinate with Dr. Ake and Marty Stutzke, who wrote the safety / risk assessment report.

Ben Beasley

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 1:51 PM
To: Anderson, Brian
Cc: Burnell, Scott; Sheehan, Neil; Screnci, Diane; Leeds, Eric; Beasley, Benjamin

Subject: FW: Need talking points on GSI-199

Brian,

Scott's plate is overflowing, so could you please take on this task (see below) that explains what the agency has done and is planning to do with respect to GSI-199 (including GL, planned inspections, analysis) with an approximate timeline? NRR contacts would be Pat Hiland and David Skein and in RES it would be Annie Kammerer. FYI—we put out a press release Sept. 8 about the seismic research. There was also a communication plan developed with a list of 27 plants (which may now be expanded). If you could pull a very rough set of bullets together by COB today or early tomorrow morning, that would help immensely.

Also, check the NRR Sharepoint site and Bob Nelson, NRR, about communications regarding the Temporary Instruction that Eric Leeds said will go out today—we need to find out more on what that is about.

Thanks,

Beth Hayden
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment
301-415-8202
elizabeth.hayden@nrc.gov

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 12:30 PM
To: Burnell, Scott
Cc: Screnci, Diane; Sheehan, Neil
Subject: Need talking points on GSI-199

Scott, Neil

I need you to draft some talking points on GSI-199 that summarizes briefly what has happened between the USGS data in 2008 to what we did with that information and what we are doing now and plan to do in the future (GL, analysis, inspections per what timeline?) We also need to clarify what the list of 27 plants means, whether it has expanded to include all plants, etc.

A specific question from Hannah Northey, Greenwire, is when did NRC start looking at plants with regard to the 2008 data from USGS? Please call her at 202-446-0468 to clarify specifics on GSI-199.

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: Smith, Sharon on behalf of Janney, Margie
To: Nichols, Russell; Sealing, Donna; Paradiso, Karen; Landau, Mindy; Clayton, Kathleen; McDermott, Brian; Morris, Scott; Holahan, Patricia; Erlanger, Craig; Thaggard, Mark; Correia, Richard; Layton, Michael; Wimbush, Andrea; Glitter, Joseph; Nelson, Robert; Howe, Allen; Ruland, William; Bahadur, Sher; Craver, Patti; Mamish, Nader; Mitchell, Linda; Hayden, Elizabeth; Shannon, Valerie; Vietti-Cook, Annette; Champ, Billie; Case, Michael; Richards, Stuart; Gibson, Kathy; Scott, Michael; Coe, Doug; Coyne, Kevin; Parks, Jazel; Powell, Amy; Droggitis, Spiros; Belmore, Nancy; Hirsch, Patricia; Remsburg, Kristy; Pulliam, Timothy; Rodgers, Mary; Whetstone, Jack; Corbett, James; Shields, James; Rich, Thomas; Holonich, Joseph; Boyce, Thomas (OIS); Schaeffer, James; Evans, Michele; Rheaume, Cynthia; Boger, Bruce; Grobe, Jack; Givvines, Mary; Uhle, Jennifer; Valentin, Andrea; Dorman, Dan; Matthews, David; Akstulewicz, Frank; Madden, Patrick; Correa, Yessie; Baker, Pamela; Manning, Louis; Coleman, Judy; Travick, Vanette; Holt, BJ; Choe, Jeannie; Hays, Myra; Munroe, Stacey; Holahan, Gary; Dean, Bill; Wert, Leonard; Howell, Art; Casto, Chuck
Cc: Kardaras, Tom; Ordaz, Vonna; Ferrell, Kimberly; McKelvin, Sheila; Mike, Linda; Hart, Ken; Laufer, Richard; Bavol, Rochelle; Shea, Pamela; Bates, Andrew; Wright, Darlene; Lewis, Antoinette; Raphael, Mary Jean; Muessle, Mary; Andersen, James; Wagner, Katie; Flanagan, Michelle; Marshall, Jane; Haney, Catherine; Kinneman, John; Kokaiko, Lawrence; Doolittle, Elizabeth; Ford, William; Smith, James; Smith, Shawn; White, Bernard; Bailey, Marissa; Davis, Jack; Mohseni, Aby; Tschiltz, Michael; Weaver, Doug; Fitreim, Anthony; Hiltz, Thomas; Smith, Brian; Habighorst, Peter; Johnson, Robert; Campbell, Larry; Silva, Patricia; Rivera-Lugo, Richard; Larche, Linda; Walker, Tracy; Smith, Sharon; Trent, Glenn
Subject: Revised With Bridge line Info.- Request for Information after Events in Japan

When: Thursday, March 24, 2011 3:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: HQ-TWFFN-10A01-40p

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

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

Revised Information: Bridge line: 888-677-5809 Pass Code (b)(6)

Hi Everyone,

The agency is receiving a significant increase in requests for information after the events in Japan. Your help is needed to provide solutions as to how we can expeditiously complete the requests without significantly impacting mission-related work.

Some topics which we'd like to discuss include:

A quick FOIA request overview

A quick Congressional Inquiry overview

What is considered due diligence in searching for the requested material?

Can OIS provide an automated enterprise search for the pertinent information needed; if so, what are the search criteria?

Please forward this meeting notice to appropriate staff.

Please let me know if you have any questions.

Thanks!
-Margie

AL/15

From: Hayden, Elizabeth
To: McIntyre, David
Subject: FW: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11
Date: Thursday, March 24, 2011 1:48:00 PM

Are you here tomorrow?

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: Brenner, Eliot
Sent: Thursday, March 24, 2011 1:45 PM
To: McIntyre, David
Cc: Burnell, Scott; Hayden, Elizabeth
Subject: RE: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

Beth will take this one.

From: McIntyre, David
Sent: Thursday, March 24, 2011 1:42 PM
To: Brenner, Eliot
Cc: Burnell, Scott
Subject: FW: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

We're all flat-out, including you, as you sent this to my personal email. I'll do this if Scott is handing the UCS/Containment accident pressure charges.

From: (b)(6) [mailto:(b)(6)] **On Behalf Of** Dave McIntyre
Sent: Thursday, March 24, 2011 1:36 PM
To: McIntyre, David
Subject: Fwd: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

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

From: Brenner, Eliot <Eliot.Brenner@nrc.gov>
Date: Thu, Mar 24, 2011 at 1:32 PM
Subject: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11
To: Dave McIntyre <(b)(6)>

David: Is this something you can take on?

AL/16

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

From: Burnell, Scott

Sent: Thursday, March 24, 2011 1:28 PM

To: Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth

Subject: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

Importance: High

We need a press release, I'm the best option, but I'm flat-out with existing stuff. Perhaps Dave?

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

From: Mensah, Tanya

Sent: Thursday, March 24, 2011 1:23 PM

To: McIntosh, Angela; Doolittle, Elizabeth; Sullivan, Frederick; Tabatabai, Omid

Cc: Hawes, Cathy; Rosenberg, Stacey; Hilton, Nick; Hill, Leslie; Donnell, Tremaine;

QTE Resource; Burnell, Scott; OGCMailCenter Resource; Banic, Merrilee; Russell, Andrea

Subject: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

Good afternoon:

NRR/DPR was assigned to develop a RIS today (it is due tomorrow). The only information that I have at the moment is the intent of the RIS (see below). Dave Beaulieu and Tom Alexion have the lead to develop the RIS. Tom Alexion plans to send a draft RIS to you all (or to a POC that you designate) either late today, or early tomorrow, with concurrence requested by 2:30 pm tomorrow (Friday) afternoon, if possible.

NRR may need a POC from your Office to concur on the RIS. The NRR technical leads have not yet identified the addressees that would be impacted and are still working on the RIS. Thus, if you believe your licensees would be impacted by issuance of this RIS (based upon the intent provided below), please advise us so that you can be added on concurrence. If you are not sure and need to see the draft prior to making a decision, that is fine. Please be sure to confirm with Tom who the POC is for your Office.

As soon as Tom has a draft available, he will forward it to you or the POC that you designate. In the meantime, please advise your senior management, as NRR will need expedited support (if the RIS is applicable to your licensees) to facilitate parallel concurrence.

I am also copying the contacts that normally review and concur on a RIS from OGC, OE, PMDA, OIS, and technical editor. OPA is copied for awareness only.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to request that addressees with on-going environmental monitoring programs voluntary report to the NRC confirmed anomalous environmental radioactivity measurements likely caused by radioactive material released by the Fukushima Daiichi Nuclear Power Station in Japan following the March 11, 2011, Tohoku-Taiheiyou-Oki earthquake. 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. The information collected will be used to enhance the Federal and state monitoring programs.

Thanks again for your time and support,

Tanya Mensah, Generic Communications Program Manager
301-415-3610

From: Hayden, Elizabeth
To: Brenner, Eliot
Subject: RE: brian anderson
Date: Thursday, March 24, 2011 1:48:00 PM

Great!

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: Brenner, Eliot
Sent: Thursday, March 24, 2011 1:25 PM
To: Burnell, Scott; Hayden, Elizabeth; Harrington, Holly
Subject: brian anderson

Is now assigned to us exclusively for the next four weeks. The only request from NRO is that at four weeks we talk with them to reassess. Yay.

Eliot

Eliot Brenner
Director, Office of Public Affairs
Nuclear Regulatory Commission
Rockville, Md.
O: 301-415-8200
C: (b)(6)

AL/17

From: Mensah, Tanya
To: Hayden, Elizabeth
Cc: Beaulieu, David; Alexion, Thomas; Hawes, Cathy; Rosenberg, Stacey; Blount, Tom
Subject: RE: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11
Date: Thursday, March 24, 2011 3:03:33 PM

Will do Beth. I am copying the NRR leads that are developing the RIS.

Dave and Tom A.: Please include OPA (Beth Hayden) on the email distribution for the Draft RIS once ready. Also, please keep her posted regarding the timing of issuance for the RIS. Per the email chain below, OPA will be planning to issue a press release for the RIS.

Thanks,

Tanya

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 2:52 PM
To: Mensah, Tanya
Subject: FW: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

"OK, Tanya. Please let me know when you get more info—either send a flagged e-mail or call me or both. Thanks.

Beth Hayden
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment
301-415-8202
elizabeth.hayden@nrc.gov

From: Brenner, Eliot
Sent: Thursday, March 24, 2011 1:45 PM
To: McIntyre, David
Cc: Burnell, Scott; Hayden, Elizabeth
Subject: RE: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

Beth will take this one.

From: McIntyre, David
Sent: Thursday, March 24, 2011 1:42 PM
To: Brenner, Eliot
Cc: Burnell, Scott
Subject: FW: FW: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

We're all flat-out, including you, as you sent this to my personal email. I'll do this if Scott is handing the UCS/Containment accident pressure charges.

AL/18

From: (b)(6) [mailto:(b)(6)] **On Behalf Of** Dave McIntyre
Sent: Thursday, March 24, 2011 1:36 PM
To: McIntyre, David
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Sent: Thursday, March 24, 2011 1:28 PM
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Importance: High

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Perhaps Dave?

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Sent: Thursday, March 24, 2011 1:23 PM
To: McIntosh, Angela; Doolittle, Elizabeth; Sullivan, Frederick; Tabatabai, Omid
Cc: Hawes, Cathy; Rosenberg, Stacey; Hilton, Nick; Hill, Leslie; Donnell, Tremaine; QTE Resource; Burnell, Scott; OGCMailCenter Resource; Banic, Merrilee; Russell, Andrea
Subject: URGENT ACTION: NRR Issuance of a RIS Related to The Japan Earthquake By 3/25/11

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As soon as Tom has a draft available, he will forward it to you or the POC that you designate. In the meantime, please advise your senior management, as NRR will need expedited support (if the RIS is applicable to your licensees) to facilitate parallel concurrence.

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The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to request that addressees with on-going environmental monitoring programs voluntarily report to the NRC confirmed anomalous environmental radioactivity measurements likely caused by radioactive material released by the Fukushima Daiichi Nuclear Power Station in Japan following the March 11, 2011, Tohoku-Taiheiyoku-Oki earthquake. 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. The information collected will be used to enhance the Federal and state monitoring programs.

Thanks again for your time and support,

Tanya Mensah, Generic Communications Program Manager
301-415-3610

From: Burnell, Scott
To: Hayden, Elizabeth
Subject: Re: NextEra Energy Questions
Date: Thursday, March 24, 2011 5:22:36 PM

I can reply tomorrow if necessary.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Hayden, Elizabeth
To: Hiland, Patrick
Cc: Burnell, Scott; Kammerer, Annie; Kauffman, John
Sent: Thu Mar 24 17:11:44 2011
Subject: FW: NextEra Energy Questions

Pat,

Can you help me out in answering t least the 2 highlighted questions from FPL? The licensee sounds like this is all a surprise to him.

Beth Hayden

From: Waldron, Michael [mailto:Michael.Waldron@fpl.com]
Sent: Thursday, March 24, 2011 4:03 PM
To: Hayden, Elizabeth
Subject: NextEra Energy Questions

Beth:

Good to speak with you. I will have our licensing folks look for the letter that apparently went out last fall. In the meantime, however, I'm trying to answer a number of questions pertaining to the article below.

1) We are trying to understand why our plants in low seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk... can you help explain?

2) How does the Commission plan to conduct this evaluation? For instance, are you asking us for data, are you running models based on government geologic information? Is there something specific we should be preparing for if, in fact, you are going to do this review?

3) My basic understanding, especially in the case of St. Lucie and Duane Arnold, is that highly conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

AL/19

As you can imagine, this list has raised a number of questions for us since geologic maps tend to tell a different story. We're really just trying to figure this out at this point. If you could respond as quickly as possible, I would certainly appreciate it. Thanks again for your help.

Mike

US NRC to check seismic risk of 27 nuke units;
Washington (Platts)--23Mar2011/1033 am EDT/1433 GMT

The US Nuclear Regulatory Commission will conduct a seismic risk assessment of Entergy's Indian Point plant in New York next year, the first of 27 reviews of nuclear power units at 17 plants, agency spokeswoman Beth Hayden said Tuesday.

SepRrately, NRC Chairman Gregory Jaczko "has personally committed to inspect Indian Point," located about 35 miles north of New York City, although "no date has not been determined" for the visit, Hayden said.

The NRC reported these nuclear units will receive the seismic review next year: Indian Point 2, Indian Point 3, Limerick 1, Limerick 2, Peach Bottom 2, Peach Bottom 3, Seabrook, Crystal River 3, Farley 1, Farley 2, North Anna 1, North Anna 2, Oconee 1, Oconee 2, Oconee 3, St. Lucie 1, St. Lucie 2, Sequoyah 1, Sequoyah 2, Summer, Watts Bar 1, Dresden 2, Dresden 3, Duane Arnold, Perry 1, River Bend and Wolf Creek.

The earthquake risk review is part of a new assessment NRC conducted based on 2008 revised US Survey data of seismic activity in the eastern and central US, said Scott Burnell, an NRC spokesman. The review pre-dated the earthquake and tsunami that wreaked havoc this month on the Fukushima nuclear stations.

Burnell categorized the findings as a "very broad bush indicator" that is not sufficient to determine the odds for earthquakes at a given nuclear reactor site.

The NRC is planning to send letters to plant operators late this year.

"The expectation is this analysis would show where plants could improve what already is an acceptable response to seismic events," Burnell said. The 27 units selected for review showed the largest increase in seismic risk from a 1980s-era USGS study, he said.

The Indian Point site was selected as the first to be inspected by NRC next year because the revised seismic data showed the largest increase in seismic risk increase from the previous study, Hayden said.

Senator Barbara Boxer, chairman of of the Senate Environment and Public Works Committee and Senator Dianne Feinstein, both Democrats, on March 16 wrote to Jaczko asking that NRC inspect both the Diablo Canyon and San Onofre nuclear units, saying they are concerned that the plants "are near earthquake faults."

New York Governor Andrew Cuomo, a Democrat, urged NRC to shut Indian Point during

the past decade when he was the state's attorney general. Cuomo raised concerns about the two-unit plant's proximity to the Ramapo fault and its discharge of heated water into the Hudson River.

"It is essential that the NRC move quickly to answer the significant and long-standing safety questions surrounding Indian Point," Cuomo said in a statement Tuesday.

Entergy said in a statement Tuesday: "All citizens of New York need to have access to the pertinent facts regarding Indian Point. We strongly believe that knowing the facts will answer the public's questions and will also clearly demonstrate that this facility is safe -- designed with a margin of safety beyond the strongest earthquake anticipated in the area. Accordingly, Entergy welcomes Governor Cuomo's call for a review of Indian Point by the federal Nuclear Regulatory Commission and stands ready to assist."

NEXTERA
ENERGY Nuclear Communications

Michael Waldron | Director
Nuclear Communications

Office: 561.694.3618 | **Mobile:**

(b)(6)

Email: Michael.Waldron@fol.com

From: Hayden, Elizabeth
To: Ruland, William
Subject: FW: Media Contact
Date: Thursday, March 24, 2011 6:07:00 PM

Bill,

Your name came up as one of the ones involved in the drawing for the Bechtel equipment. Were you involved and do we still have the drawing? The media would certainly be interested in it.

Beth Hayden

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

From: Brenner, Eliot
Sent: Thursday, March 24, 2011 5:34 PM
To: Hayden, Elizabeth
Subject: RE: Media Contact

Fyi ... Bechtel person is Charlene wheeler or wheelles, 301-228-8981 ... she has your name and the 8200 number, along with my cell and direct line.

eliot

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

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 5:32 PM
To: Weber, Michael; Hannah, Roger
Cc: Brenner, Eliot; Skeen, David; Brown, Frederick; Dudes, Laura
Subject: RE: Media Contact

Are there any names of those on the RST that we could identify for helping with the design?

Beth

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

From: Weber, Michael
Sent: Tuesday, March 22, 2011 9:45 PM
To: Hannah, Roger
Cc: Brenner, Eliot; Hayden, Elizabeth; Skeen, David; Brown, Frederick; Dudes, Laura
Subject: Response - Media Contact

Thanks, Roger. Glad to have you here for a few days to participate in the response. This is a "good government" story. Our team here in Rockville worked with our team in Tokyo and their Japanese counterparts last weekend to sketch out a solution to provide sustained cooling to the spent fuel pools at Fukushima-Daiichi. The Reactor Safety Team in Rockville fleshed out the design early last week and then reached out to INPO, GE, Bechtel, and others to further refine and peer review the design. Bechtel identified the closest components of the system and other parts that could be promptly fabricated and shipped to Japan from Australia. We then worked it with the U.S. Embassy in Japan, our team in Tokyo, US AID, US military (Pacific Command), and the Australian Air Force to procure and transport the system to Japan. Industry and multiple governments working together to solve a problem and protect people!

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

From: Hannah, Roger
To: Weber, Michael; Brenner, Eliot; Hayden, Elizabeth
Sent: Tue Mar 22 19:23:55 2011
Subject: RE: Media Contact

AL/20

I've contacted Ed Rogers at Bechtel and given him my contact information so the Bechtel PR folks can contact us and we can discuss any media interaction.

Roger

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

From: Weber, Michael
Sent: Tuesday, March 22, 2011 7:22 PM
To: Brenner, Eliot; Hayden, Elizabeth; Hannah, Roger
Subject: FYI - Media Contact

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

From: Cook, William
To: Monninger, John; Weber, Michael; LIA02 Hoc; RST01 Hoc; LIA03 Hoc
Cc: Casto, Chuck; Dorman, Dan; 'YoungJM@state.gov' <YoungJM@state.gov>
Sent: Tue Mar 22 18:48:44 2011
Subject: RE: Media Contact

Just so everyone knows, there were about a dozen media types on the Flight Line observing the second C17 off-load operations at Yokota. I was not interviewed, but there were a lot of videos and pictures being taken while we were talking with Admiral Gregory.

Bill

From: Monninger, John
Sent: Tuesday, March 22, 2011 6:16 PM
To: Weber, Michael; LIA02 Hoc; RST01 Hoc; LIA03 Hoc
Cc: Casto, Chuck; Dorman, Dan; 'YoungJM@state.gov'; Cook, William
Subject: Fw: Media Contact

ET

See below regarding interest in US/NRC/INPO/Bechtel activities in Australia. Do you want coordinated response with NRC OPA with the Embassy here?

John M

John Monninger

(b)(6)

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

From: Rogers, Ed <CEROGER1@Bechtel.com>
To: Young, Joseph M <YoungJM@state.gov>; Merchant, Ned <cemercha@bechtel.com>;
(b)(6)
(b)(6) >; Monninger, John
Cc: Thomas, Eugene <ewthomas@bechtel.com>; Cook, William; (b)(6)
(b)(6) >; Daw, Martyn <mndaw@bechtel.com>
Sent: Tue Mar 22 14:46:47 2011
Subject: Media Contact

Joe, I am sending this to you because I am not sure who to reach out to on the following request. That said, anyone on the distribution can answer.

Our folks in Australia have apparently been contacted by several media

sources (they used the words inundated) making inquiries on the work we are doing for you all. We would appreciate an appropriate media contact to forward these calls too.

Please let me know soonest.

Ed Rogers

Office (240) 379-3179

Cell (b)(6)

From: ANS.HQC@nrc.gov
Subject: ACTION: Commissioners Assistants Briefing Notification
Date: Thursday, March 24, 2011 7:11:36 PM
Attachments: [USNRC Earthquake-Tsunami Update.032411.1800EDT.pdf](#)

There will be a Commissioners Assistants Briefing given by the NRC HQ at 2000 EDT on 3/24/11 concerning the Reactor Events in Japan. Call 1 (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter security code (b)(6). You may call 301-816-5164 at this time and follow the voice prompts if you do not wish to receive this notification from our Automatic Notification System..

From: Hayden, Caitlin
To: Brenner, Eliot; Shapiro, Nicholas S.
Cc: Casto, Chuck; Hayden, Elizabeth
Subject: RE: heads up
Date: Thursday, March 24, 2011 7:13:06 PM

Great!

From: Brenner, Eliot [mailto:Eliot.Brenner@nrc.gov]
Sent: Thursday, March 24, 2011 6:03 PM
To: Hayden, Caitlin; Shapiro, Nicholas S.
Cc: Casto, Chuck; Hayden, Elizabeth
Subject: heads up

We have now learned that the Japanese have accepted use of the machine dreamed up by NRC engineers and built by Bechtel. My office is in contact with Bechtel public affairs on a response (Bechtel release, DC media event by Bechtel or whatever, all with reference to NRC) when this gets out.

Beth Hayden is carrying the ball for us Friday while I get caught up on personal stuff. I am on duty all weekend.

Eliot

From: Hayden, Caitlin [mailto: (b)(6)]
Sent: Thursday, March 24, 2011 10:15 AM
To: Brenner, Eliot; Shapiro, Nicholas S.
Cc: Casto, Chuck; Hayden, Elizabeth
Subject: RE: question

Thanks, Eliot (and Chuck!) We're grateful for all the seriously hard work... -CH

From: Brenner, Eliot [mailto:Eliot.Brenner@nrc.gov]
Sent: Thursday, March 24, 2011 10:12 AM
To: Hayden, Caitlin; Shapiro, Nicholas S.
Cc: Casto, Chuck; Hayden, Elizabeth
Subject: RE: question

Caitlan: Thanks for your perspective. We can stay in/on the reservation unless thrust into spotlight.

So, Chuck, if you find yourself in a situation where you are asked by Japanese to speak as you did today, go ahead within the confines of our core mission (support embassy, provide technical assistance to Japan or our role in that machine should the Japanese ask for its

AL/22

deployment), but obviously avoid the more sensitive areas like assessments of Japan's performance, reactor status, etc..

Thanks to all.

Eliot

From: Hayden, Caitlin [mailto: (b)(6)]
Sent: Thursday, March 24, 2011 10:02 AM
To: Brenner, Eliot; Shapiro, Nicholas S.
Cc: Casto, Chuck; Hayden, Elizabeth
Subject: RE: question

Eliot: Thanks! I'm actually not terribly supportive of NRC staff briefing U.S. media in Japan either, because I do not think U.S. reporters are going to ask Chuck very many questions about the fact that "you're there to help." I think they're going to be looking for assessments of the situation and how well the Japanese are handling. I'm not suggesting Chuck should be invisible or not speak briefly to press at events where he may be present, but I think a press briefing goes further than we'd like. So, that's our best advice from here. Let us know what you decide. Thanks! -Caitlin

From: Brenner, Eliot [mailto:Eliot.Brenner@nrc.gov]
Sent: Thursday, March 24, 2011 9:49 AM
To: Hayden, Caitlin; Shapiro, Nicholas S.
Cc: Casto, Chuck; Hayden, Elizabeth
Subject: RE: question

Nick/Caitlin:

Agreed that we (NRC) don't want to be talking directly to Japanese through their media. If we did anything we would hold it exclusively to U.S. media and keep it focused on "we're here to help."

Here's the state of play on what will be an evolving matter. At the Japanese Cabinet meeting with the press Thursday evening (this morning here), the Japanese asked our senior guy, Chuck Casto, to make a statement to the media afterwards. He reports that he spoke to one TV reporter (unknown if US or Japanese) and said that Japan has strategies to address the reactors and the U.S. is here to help in all means we can.

We are clear that it is not our place to say what reactor status is, comment on Japanese handling of situation, etc. Our main talking point

is the "here to help approach, longstanding relationship, lots of technical expertise to lend, etc." Also that we are providing technical expertise to the Embassy in Tokyo.

As a side note, there is a large pumping apparatus that sprang from an NRC idea, was designed and built by Bectel in Australia, and airlifted in by the Aussies. It is nearing readiness for deployment from a U.S. air base If Japan asks for it. The presence of this may now be known to the media. Can't guarantee that, but we saw video cameras in the pictures we got of the equipment arrival.

Now that the Japanese asked Chuck to speak, the gates are going to open. I have had requests for him to do interviews since Monday of last week when we shipped him over.

Just want to keep you aware of what is happening.

Our Chairman is OK with Chuck doing media regarding U.S. efforts, but we don't want to screw up anything you have going or overall approach by USGovt. Caitlan – I read your note to be supportive of speaking only with U.S. media in Japan regarding U.S. efforts in Japan. If I am mistaken, let me know. If we put Chuck up for a press availability, exclusively to U.S. media, I would need some logistical help in Tokyo because I have no one there.

Our domestic focus has been for a U.S. audience with the usual press releases, blogs, fact sheet web links and appearances by our chairman. We're up to five hearing requests now.

Eliot

(I have copied Elizabeth Hayden, the #2 in our office, because I am out tomorrow trying to catch up on personal stuff, back in the fray in the late afternoon DC time.)

From: Hayden, Caitlin [mailto:(b)(6)]
Sent: Thursday, March 24, 2011 8:55 AM

To: Shapiro, Nicholas S.; Brenner, Eliot
Subject: RE: question

Eliot: Hi! I have to admit I'm a little confused by the purpose of these interviews, but am interested in hearing more. You're an independent agency, so we can only offer you our best advice and thoughts at this point. The feeling here is that we're not particularly keen on the idea of our domestic nuclear regulators briefing the Japanese people/media on the nuclear aspects of a Japanese crisis. It's absolutely appropriate for you to brief Americans, but we feel the Japanese should be briefing their own people on this aspect of the crisis. You're doing a lot to support the effort, which I think we can and should be recognizing with fact sheets, websites, and briefings in the U.S., etc. Hope that's useful and let me know what you think or if you want to discuss more. Thanks! -Caitlin

From: Shapiro, Nicholas S.
Sent: Thursday, March 24, 2011 8:42 AM
To: 'Eliot.Brenner@nrc.gov'; Hayden, Caitlin
Subject: Re: question

Hey brother,

I'm handling the response in the US, adding caitlin to help you with what folks are doing in japan

From: Brenner, Eliot <Eliot.Brenner@nrc.gov>
To: Shapiro, Nicholas S.
Sent: Thu Mar 24 08:40:18 2011
Subject: question

Nick: the DOS PR guy I talked with yesterday was very much toeing the company line about the administration wanting to manage press and messaging from DC. So, would I earn the undying enmity of the administration if I put my guy out front in Tokyo in the immediate future?

I'm just trying to gauge the impact before making that decision. Your guidance is very helpful and appreciated.

Eliot

Eliot Brenner
Director, Office of Public Affairs
Nuclear Regulatory Commission
Rockville, Md.

O: 301-415-8200

C: (b)(6)

From: Weber, Michael
To: Hayden, Elizabeth
Cc: LIA06 Hoc; LIA08 Hoc; RST01 Hoc; ET01 Hoc; OST02 HOC
Subject: FYI - Bechtel pumping device
Date: Thursday, March 24, 2011 9:24:48 PM

From: Brenner, Eliot
To: Weber, Michael
Sent: Thu Mar 24 18:37:22 2011
Subject: Re: Response - Bechtel pumping device

If necessary, it would help to have a face of nrc. I have talked to rulan and have copies of the drawings.

Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200

C (b)(6)

Sent from my Blackberry

From: Weber, Michael
To: Brenner, Eliot
Sent: Thu Mar 24 18:11:14 2011
Subject: Response - Bechtel pumping device

It was a team effort, so would hesitate to identify individuals for the fear of excluding someone. The teams included our staff in Japan and here in Rockville. We developed in conjunction with the industry (INPO, Bechtel,...) And other government agencies like DOE, AID, and DOD.

From: Brenner, Eliot
To: Weber, Michael
Sent: Thu Mar 24 16:31:49 2011
Subject: bechtel pumping device

Mike ... this is what I am filing informationally for the TNT note. I have somewhere a short description of this device ... but what I really need is who in the NRC thought it up. There will be a nice little story to go with this and we should milk it when the time comes.

Eliot

BECHTEL DEVICE – OPA was contacted by Bechtel corporate communications (Frederick, MD) for advice on how to talk about a pumping device, apparently dreamed up by the NRC and constructed in Australia by Bechtel, when word of its presence in Japan breaks. Our advice was to do a press event in the DC area – if the Japanese government formally requests the use of the machine -- to talk about the device's creation, mentioning the NRC role, and that we would take questions as necessary. OPA explained our posture

A 2/23

in terms of saying, through NRC staff in Japan only if asked, that our role is to support the Embassy and the Japanese authorities working this problem.

Eliot Brenner
Director, Office of Public Affairs
Nuclear Regulatory Commission
Rockville, Md.

O: 301-415-8200

C

(b)(6)

From: ANS.HQC@nrc.gov
Subject: ACTION: Commissioners Assistants Briefing Notification
Date: Friday, March 25, 2011 6:24:25 AM
Attachments: [NRC Status Update 3.25.11--0430.pdf](#)

There will be a Commissioners Assistants Briefing given by the NRC HQ at 0730 EDT concerning the Reactor Events in Japan. Call (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter security code (b)(6). You may call 301-816-5164 at this time and follow the voice prompts if you do not wish to receive this notification from our Automatic Notification System.

AL/24

From: Brenner, Eliot
To: Burnell, Scott; Hayden, Elizabeth; Harrington, Holly; McIntyre, David
Subject: Fw: Google Alert - Nuclear Regulatory Commission
Date: Friday, March 25, 2011 8:00:51 AM

Please share this item aroundm liberally. Thanks.

Eliot Brenner

Director, Office of Public Affairs

US Nuclear Regulatory Commission

Protecting People and the Environment

301 415 8200

C (b)(6)

Sent from my Blackberry

From: Google Alerts <googlealerts-noreply@google.com>
To: Brenner, Eliot
Sent: Thu Mar 24 21:49:43 2011
Subject: Google Alert - Nuclear Regulatory Commission

Web

1 new result for Nuclear Regulatory Commission

DailyTech - EDITORIAL: U.S. **NRC** Confirms MSNBC.com Reporter ...

Nuclear fear-mongering for profit -- government provides our strongest evidence in stunning tale of misinformation.

www.dailytech.com/EDITORIAL.../article21170.htm

Tip: Use a minus sign (-) in front of terms in your query that you want to exclude. [Learn more.](#)

[Remove](#) this alert.

[Create](#) another alert.

[Manage](#) your alerts.

AL/25

From: Harrington, Holly
To: Burnell, Scott; Hayden, Elizabeth
Subject: RE: Google Alert - "Nuclear Regulatory Commission"
Date: Friday, March 25, 2011 8:16:35 AM

So one media outlet did a story on this, prompted by Markey. I don't think posting a Q&A would have changed their story, so the only reason to post it would be allay fears of others. I think, personally, that we should wait to see if this story gets any traction. If yes, then we post them. But if not, I think we let sleeping dogs lie.

But that's my just my opinion.

From: Burnell, Scott
Sent: Friday, March 25, 2011 7:16 AM
To: Harrington, Holly; Hayden, Elizabeth
Subject: Fw: Google Alert - "Nuclear Regulatory Commission"

The CNN piece is why we need the Price-Anderson QA posted. I worked with the CNN guy over two days, pushing as hard as I could on why the program's reasonable, but they prefer rabble-rousing, it seems.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Google Alerts <googlealerts-noreply@google.com>
To: Burnell, Scott
Sent: Fri Mar 25 07:04:55 2011
Subject: Google Alert - "Nuclear Regulatory Commission"

News

2 new results for "Nuclear Regulatory Commission"

Nuclear industry shielded from big disaster costs

CNNMoney

A 1982 study from Sandia National Laboratories, commissioned for the **Nuclear Regulatory Commission**, said the consequences of a nuclear meltdown would be catastrophic. The disaster could cause 50000 fatalities and \$314 billion in property damage. ...

[See all stories on this topic »](#)

Regulators to assess safety at Ariz. nuclear plant

Houston Chronicle

The nuclear crisis in Japan also has prompted the **Nuclear Regulatory Commission** to launch a review of US nuclear plants. Arizona Public Service, the utility that runs the plant on behalf of a consortium of power companies in the four states, ...

[See all stories on this topic »](#)

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A 4/26

[Create another alert.](#)
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From: Hayden, Elizabeth
To: "Jean.GAUVAIN@oecd.org"
Subject: RE: [NEA Secretariat WGPC] About NRC actions following the event in Japan: a message to Flashnews?
Date: Friday, March 25, 2011 8:45:00 AM

This memo is the subject of the press release I sent to flashnews and believe it will suffice to keep our group informed of NRC actions. Thanks.

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: Jean.GAUVAIN@oecd.org [mailto:Jean.GAUVAIN@oecd.org]
Sent: Friday, March 25, 2011 6:07 AM
To: Hayden, Elizabeth
Subject: [NEA Secretariat WGPC] About NRC actions following the event in Japan: a message to Flashnews?

Hi Beth,

It may be of interest that you send the attached NRC Memo to wpcnews@oecd-nea.org ... Of course I leave it up to you
Best Regards

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile (b)(6)

From: Williams, Donna [mailto:Donna.Williams@nrc.gov]
Sent: 24 March, 2011 6:14 PM
To: BURKHART Lawrence, NEA/SURN; GRESS Philippe, NEA/SURN
Cc: Holahan, Gary
Subject: NRC actions following the event in Japan

Larry

Attached is the Commission Tasking Memo that establishes the short term and long term actions for the NRC. Please share this with the STC members.
The task force is developing a charter that should be available earlier next week.

Thanks
Donna

AL/27

From: Jean.GAUVAIN@oecd.org
To: Hayden, Elizabeth
Subject: RE: [NEA Secretariat WGPC] About NRC actions following the event in Japan: a message to Flashnews?
Date: Friday, March 25, 2011 8:53:32 AM

Yes indeed please send the press release to wgpcnews@oecd-nea.org

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile (b)(6)

From: Hayden, Elizabeth [mailto:Elizabeth.Hayden@nrc.gov]
Sent: Friday, March 25, 2011 13:46
To: GAUVAIN Jean, NEA/SURN
Subject: RE: [NEA Secretariat WGPC] About NRC actions following the event in Japan: a message to Flashnews?

This memo is the subject of the press release I sent to flashnews and believe it will suffice to keep our group informed of NRC actions. Thanks.

*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*

AL/28

From: Burnell, Scott
To: Michael.Waldron@fpl.com
Cc: Hayden, Elizabeth
Subject: FW: NextEra Energy Questions
Date: Friday, March 25, 2011 9:26:31 AM

Hello Michael;

I've been trying to corral this issue ever since MSNBC took off on its flight of fancy – rather like herding cats at this point. I'll be happy to walk you through the basics, please give me a call when you have a chance. Thanks.

Scott Burnell
Public Affairs Officer
Nuclear Regulatory Commission
301-415-8204

From: Waldron, Michael [mailto:Michael.Waldron@fpl.com]
Sent: Thursday, March 24, 2011 4:03 PM
To: Hayden, Elizabeth
Subject: NextEra Energy Questions

Beth:

Good to speak with you. I will have our licensing folks look for the letter that apparently went out last fall. In the meantime, however, I'm trying to answer a number of questions pertaining to the article below.

1) We are trying to understand why our plants in low-seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk...can you help explain?

2) How does the Commission plan to conduct this evaluation? For instance, are you asking us for data, are you running models based on government geologic information? Is there something specific we should be preparing for if, in fact, you are going to do this review?

3) My basic understanding, especially in the case of St. Lucie and Duane Arnold, is that highly conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

As you can imagine, this list has raised a number of questions for us since geologic maps tend to tell a different story. We're really just trying to figure this out at this point. If you could respond as quickly as possible, I would certainly appreciate it. Thanks again for your help.

Mike

AL/29

US NRC to check seismic risk of 27 nuke units;

Washington (Platts)--23Mar2011/1033 am EDT/1433 GMT

The US Nuclear Regulatory Commission will conduct a seismic risk assessment of Entergy's Indian Point plant in New York next year, the first of 27 reviews of nuclear power units at 17 plants, agency spokeswoman Beth Hayden said Tuesday.

Separately, NRC Chairman Gregory Jaczko "has personally committed to inspect Indian Point," located about 35 miles north of New York City, although "no date has not been determined" for the visit, Hayden said.

The NRC reported these nuclear units will receive the seismic review next year: Indian Point 2, Indian Point 3, Limerick 1, Limerick 2, Peach Bottom 2, Peach Bottom 3, Seabrook, Crystal River 3, Farley 1, Farley 2, North Anna 1, North Anna 2, Oconee 1, Oconee 2, Oconee 3, St. Lucie 1, St. Lucie 2, Sequoyah 1, Sequoyah 2, Summer, Watts Bar 1, Dresden 2, Dresden 3, Duane Arnold, Perry 1, River Bend and Wolf Creek.

The earthquake risk review is part of a new assessment NRC conducted based on 2008 revised US Survey data of seismic activity in the eastern and central US, said Scott Burnell, an NRC spokesman. The review pre-dated the earthquake and tsunami that wreaked havoc this month on the Fukushima nuclear stations.

Burnell categorized the findings as a "very broad brush indicator" that is not sufficient to determine the odds for earthquakes at a given nuclear reactor site.

The NRC is planning to send letters to plant operators late this year.

"The expectation is this analysis would show where plants could improve what already is an acceptable response to seismic events," Burnell said. The 27 units selected for review showed the largest increase in seismic risk from a 1980s-era USGS study, he said.

The Indian Point site was selected as the first to be inspected by NRC next year because the revised seismic data showed the largest increase in seismic risk increase from the previous study, Hayden said.

Senator Barbara Boxer, chairman of the Senate Environment and Public Works Committee and Senator Dianne Feinstein, both Democrats, on March 16 wrote to Jaczko asking that NRC inspect both the Diablo Canyon and San Onofre nuclear units, saying they are concerned that the plants "are near earthquake faults."

New York Governor Andrew Cuomo, a Democrat, urged NRC to shut Indian Point during the past decade when he was the state's attorney general. Cuomo raised concerns about the two-unit plant's proximity to the Ramapo fault and its discharge of heated water into the Hudson River.

"It is essential that the NRC move quickly to answer the significant and long-standing safety questions surrounding Indian Point," Cuomo said in a statement Tuesday.

Entergy said in a statement Tuesday: "All citizens of New York need to have access to the pertinent facts regarding Indian Point. We strongly believe that knowing the facts will answer the public's questions and will also clearly demonstrate that this facility is safe -- designed with a margin of safety beyond the strongest earthquake anticipated in the area. Accordingly, Entergy welcomes Governor Cuomo's call for a review of Indian Point by the federal Nuclear Regulatory Commission and stands ready to assist."

NEXtera
ENERGY Nuclear Communications

Michael Waldron | Director
Nuclear Communications

Office: 561.694.3618 | **Mobile:** (b)(6)

Email: Michael.Waldron@fpl.com

From: Burnell, Scott
To: Kammerer, Annie; Hayden, Elizabeth; Hiland, Patrick
Cc: Kauffman, John; Munson, Clifford; Ake, Jon; Bensi, Michelle
Subject: RE: NextEra Energy Questions
Date: Friday, March 25, 2011 10:14:23 AM

Mike's all set, thanks all.

From: Kammerer, Annie
Sent: Thursday, March 24, 2011 10:26 PM
To: Hayden, Elizabeth; Hiland, Patrick
Cc: Burnell, Scott; Kauffman, John; Munson, Clifford; Ake, Jon; Bensi, Michelle
Subject: RE: NextEra Energy Questions

Here's a possible response. Perhaps Cliff or Jon can take a look.

- 1) We are trying to understand why our plants in low seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk... can you help explain?

First, it should be clarified that the list of 27 plants is only provided to show that there is sufficient reason to move the project to the next phase of the generic issue program. These are not the only plants that will be reassessed. Due to the significant uncertainty in the data available, all plants in the central and eastern US will receive the generic letter and will be reassessed. Further, in light of the events in Japan, there is discussion within the NRC of including those in the west as well.

The GI-199 study considers both overall risk and also changes in risk. Both the approach to assessing seismic hazard and the data available to seismologists have improved significantly since the 1980. As a result, estimates of seismic hazard, although still low, have increased since that time. This is the result of a steady improvement in the understanding of seismic hazard over time. It is important to note that it is not the seismic activity, or the seismic hazard itself, that has increased; but rather it is the understanding of it that has changed. (Information on how the USGS seismic hazard maps are developed is available at the USGS website). The larger change in the risk (in terms of core damage frequency) associated with some sites in the study directly reflects the change in assessed hazard.

- 3) My basic understanding, especially in the case of St. Lucie and Duane Arnold, is that highly conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

The screening process that was undertaken used data currently available to the NRC, principally from the IPEEE study conducted in the mid-90s. Licensees of nuclear plants in moderate to high seismicity areas tended to provide more detailed information regarding the seismic resistance of

the structures, systems, and components than plants in low seismicity areas. Therefore when considering loads beyond the seismic design, NRC staff tended to have more detailed information to rely on for plants in moderate to high seismicity zones; and had to make conservative assumptions for plants in low seismicity regions.

Annie

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 5:11 PM
To: Hiland, Patrick
Cc: Burnell, Scott; Kammerer, Annie; Kauffman, John
Subject: FW: NextEra Energy Questions

Pat,

Can you help me out in answering t least the 2 highlighted questions from FPL? The licensee sounds like this is all a surprise to him.

Beth Hayden

From: Waldron, Michael [mailto:Michael.Waldron@fpl.com]
Sent: Thursday, March 24, 2011 4:03 PM
To: Hayden, Elizabeth
Subject: NextEra Energy Questions

Beth:

Good to speak with you. I will have our licensing folks look for the letter that apparently went out last fall. In the meantime, however, I'm trying to answer a number of questions pertaining to the article below.

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quickly as possible, I would certainly appreciate it. Thanks again for your help.

Mike

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Burnell categorized the findings as a "very broad brush indicator" that is not sufficient to determine the odds for earthquakes at a given nuclear reactor site.

The NRC is planning to send letters to plant operators late this year.

"The expectation is this analysis would show where plants could improve what already is an acceptable response to seismic events," Burnell said. The 27 units selected for review showed the largest increase in seismic risk from a 1980s-era USGS study, he said.

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**Michael Waldron | Director
Nuclear Communications**

Office: 561.694.3618 **Mobile:** (b)(6)

Email: Michael.Waldron@epa.com

From: Breskovic, Clarence
To: Breskovic, Clarence
Subject: GNOSIS News 2011-03-25
Date: Friday, March 25, 2011 10:15:33 AM

~~For Official Use Only~~

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

Cooperation

Taiwan and mainland nuclear power firms forge cooperative ties

Asia Pulse, March 25, 2011 Friday 2:13 PM EST

Taiwan's No. 3 nuclear power plant will foster sisterhood relations with China's GUANGDONG NUCLEAR POWER GROUP as part of efforts to increase atomic energy safety, the plant's operator said Thursday. State-owned TAIWAN POWER CO. (Taipower), announced the plan amid the nuclear crisis in Japan, where emergency workers are still struggling to regain control of a nuclear power plant crippled by the magnitude 9.0 earthquake and subsequent tsunami that devastated the country on March 11.

Russia, U.S. starting detailed talks on uranium enrichment Joint Venture

WASHINGTON. March 24 (Interfax) - Russia and the United States are launching detailed talks on plans to establish a joint venture to build a plant in the U.S. that will enrich uranium using Russian technologies. The chief of the Russian atomic energy corporation Rosatom, Sergei Kiriyenko, told journalists in Washington that an appropriate memorandum was signed by the sides in January 2010, but it came into force only after Russia's Technobexport and the U.S. company USEC signed a long-term contract on the delivery of low-enriched uranium starting from 2013.

Israel: French Diplomats Confirm Nuclear Cooperation, Know-How Exchange With Israel

Tel Aviv Haaretz.com 24 Mar 11

The nuclear catastrophe in Japan has reignited the Israeli debate in Israel over the safety of the nuclear reactor in Dimona. In response to warnings that the 50-something-year-old reactor was old, unsafe and an environmental hazard, the Israel Atomic Energy Commission (IAEC) several years ago insisted that the reactor was secure and that it had undergone renovations and upgrades to guarantee its safety. Yet it refused to divulge details and explanations about what exactly had been upgraded and renovated. France is the country that sold Israel its nuclear reactor. French experts built it in the late 1950s and early 1960s, and French companies supplied Israel with the required know-how, technology and equipment....there is indeed cooperation and exchange of know-how on nuclear issues between the two countries.

Energy Policy

Germany: Fukushima May Spell Failure for Merkel in Sunday Vote

Der Spiegel, 2011-03-24

Things couldn't get much worse for Chancellor Merkel. Or could they? Her party stands to lose power in the southwestern German state of Baden-Württemberg for the first time in 60 years this Sunday. And if it does, she will largely have only herself to blame. On Sunday, voters go to the polls in the economic-powerhouse state of Baden-Württemberg, in southwestern Germany. Polls in February had already indicated that the state's CDU governor, Stefan Mappus, was by no means assured of hanging on to his position. Now, in the face of rising concerns about nuclear power in Germany resulting from the ongoing catastrophe in Japan, ballot-box success for Mappus, a long-time supporter of atomic energy, is looking increasingly unlikely.

EU: Energy savings could mothball plans to build 98 nuclear reactors

Euractiv, 2011-03-24

If the EU's 2009 Eco-design Directive were to be implemented fully, the end-use energy savings by 2020 could alleviate the need for another 98 Fukushima-sized nuclear reactors, according to

AL/31

calculations by the European Environmental Citizens' Organisation for Standardisation (ECOS).

Thailand Needs Nuke Power

Bangkok Post Online 24 Mar 11

Thailand needs to build a nuclear power plant as the country might not be able to generate enough electricity from fossil fuels in the next 20 to 30 years, Foundation for National Disaster Warning Council chairman Smith Dharmasaroja said on Thursday. Nuclear power is a clean energy and can be used for maximum benefit, he said.

UAE 'Unlikely' To Order Changes to Nuclear Plans in Light of Crisis in Japan

Abu Dhabi The National Online in English 24 Mar 11

Abu Dhabi is closely watching the nuclear crisis in Japan, but is unlikely to order any major changes to its ambitious nuclear plans, say the heads of the programme. The emirate's first nuclear reactors will be perched on a platform 6 metres above sea level - higher than a tsunami wave, engineers believe, if one were to make it to the emirate's shores. The engineers behind Abu Dhabi's nuclear programme, a US\$20 billion (Dh73.45bn) plan scheduled to start producing nuclear energy within seven years, have taken into account scenarios ranging from earthquakes to plane crashes.

Tanzania: President Directs Government To Form Policy on Uranium Mining in Country

Dar es Salaam Daily News Online in English 23 Mar 11

President Jakaya Kikwete has directed the Ministry of Communication, Science and Technology to expedite formulation of a policy on uranium mining in the country. Speaking to officials at the ministry in Dar es Salaam on Wednesday, Mr Kikwete also urged the ministry to prepare the nation for nuclear energy, saying its application in power generation in the future was inevitable

Fuel Cycle

Russia Wants to Use U.S.' Spent Nuclear Fuel Dry Storage Technology

WASHINGTON. March 25 (Interfax) - Russia is keen to apply the spent nuclear fuel (SNF) dry storage technology, Rosatom chief Sergei Kiriyaenko said. "Among the technologies that are well developed in the U.S., I think in the nearest future we will be interested in the SNF dry storage in containers. I think, following the tests that we are carrying out today under existing projects, one of the conclusions will be to replace SNF wet storage facilities by dry ones," Kiriyaenko said at a meeting with representatives from the U.S. nuclear industry and media outlets at the Russian Embassy in Washington on Wednesday.

Energy

Seismic Considerations for Solar Plants

2011-03-22, Waller Lansden Dortch & Davis, LLC

In its efforts to become a national model for sustainability, the Los Angeles Community College System has learned that solar arrays and seismic faults are a bad combination: But major blunders and miscalculations over the last six years cost the program \$10 million, including \$4 million for designs of solar and wind installations that would never move to construction. One of the biggest problems: Three solar arrays had to be abandoned because they were planned to be built above seismic faults. The missteps, uncovered as part of a six-part Los Angeles Times investigation of the college construction program, offer a sobering lesson to builders of public and commercial buildings who plan arrays of photovoltaic panels: Check nearby seismic faults beforehand.

Global & Regional Security

West Africa's Growing Terrorist Threat: Confronting AQIM's Sahelian Strategy

Africa Center for Strategic Studies Security Brief Number 11, March 2011

•Al Qaeda in the Islamic Maghreb (AQIM) is increasingly well integrated with local communities and criminal networks in the Sahel.

- Counterterrorism efforts among Sahelian governments remain uncoordinated and too narrowly focused to contain and confront AQIM's long-term and sophisticated strategy in the region.
 - To prevent AQIM from further consolidating its presence in the Sahel, regional policies must be harmonized and security forces refocused so as to minimize collateral impacts on local communities
-

Government & Public Sector

Canada: Nuclear liability act dies again

The Toronto Star, March 25, 2011 Friday

The end of the current Parliament will mean that an act increasing the liability of nuclear operators for accidents will die. Now, an operator's liability is limited to \$75 million. The act would have upped potential damages to \$650 million. The act was supported by the nuclear industry, since it would bring Canada's act more in line with that of other countries. Given a new nuclear reactor costs about of \$10 billion, the liability amount is relatively small. With the exception of Bruce Power, which leases the Bruce reactors, Canada's nuclear operators are government owned.

Czech Poll: Support for Nuclear Power Exceeds Opposition Even After Fukushima

Prague CZECHPOSITION.COM in English 1248 GMT 23 Mar 11

The earthquake in Japan has shaken Czechs' support for nuclear power, but most still favor it as a means of energy independence. Despite the nuclear incident in Japan, a majority of Czechs support increased reliance on nuclear energy -- but would want to see a security review of domestic plants and say they lack information on what to do if there were a nuclear crisis -- according to a poll by the Center for Analysis and Empirical Studies (SANEP).

Central Asia and the Shifting Patterns of India's Relations With Russia

Jaipur Indian Journal of Asian Affairs in English 01 Jun 10 - 31 Dec 10 Vol. 23 No. 1-2 pp 1-20

"... India's encounter of Russia in Central Asia reflects not merely the altered contexts of their relations, but also the challenges facing India in its attempt to 'offer an alternative vision of a new world order'. Thus, while the discourses of the 'Look North' policy reinforce the desire that India becomes 'a kind of a model for other countries', the Central Asian context reveals that the narrative construction of New Delhi's current external affairs does not project a specific vision of world order that would distinguish it from the other participants in the 'new great game'. The implication from the discursive perceptions of New Delhi's encounter with Moscow in Central Asia is not only that India might remain a 'rising power' for longer than its pundits portend, but also that the cognitive framework of its strategic culture puts it in 'the class of countries that are always emerging but never quite arriving'."

Germany's Brüderle Tells Business Leaders Nuclear Moratorium is Election Stunt

Bonn DW-WORLD.DE 1109 GMT 24 Mar 11

A German newspaper has reported that at least one member of the German government regarded the moratorium on extending the life of the country's nuclear reactors as merely an election ploy. When Chancellor Angela Merkel announced the move she said it was motivated by the new information and risks revealed by the problems at Japan's Fukushima nuclear power plant. The three month freeze would allow time for more stringent safety checks at German nuclear plants, the chancellor said. But the Thursday [24 March] edition of the Süddeutsche Zeitung daily reported that Economy Minister Rainer Brüderle had told worried business leaders that the decision was an election stunt. He was addressing the Federation of German Industry (BDI) on the day that Chancellor Merkel announced the freeze. Süddeutsche Zeitung said it had obtained a copy of the minutes from the meeting on Monday, 14 March, which paraphrased what the economy minister said.

Industry

Uranium bull unfazed by Japan crisis

MarketWatch, March 25, 2011 Friday 1:51 AM EST

HONG KONG (MarketWatch) - Nuclear power's credentials as a green technology will weather the current Japanese nuclear crisis, according to one industry proponent, who outlined his bullish case

for uranium to a Hong Kong audience Thursday. Scarce energy resources throughout much of East Asia, apart from coal, mean there are few realistic alternatives to uranium, said Warwick Grigor, chairman of Sydney-based BGF Securities.

Mining

Niger: China National Nuclear Corp starts trial production at its first overseas uranium mine

China Daily Online 0301 GMT 24 Mar 11

BEIJING - China National Nuclear Corp (CNNC), the country's largest nuclear plant operator, has started trial production at its first overseas uranium mine. The move comes as China increases efforts to secure more of the metal used in nuclear power production, from overseas acquisitions. The Azelik mine in Niger, 37.2 percent owned by CNNC, will be capable of producing 700 tons of uranium annually when it begins full operations. The operator said earlier that it would increase annual overseas uranium capacity to 5,000 tons within 10 years to secure supplies.

Policy

US foreign aid faces cuts as China's reach grows

Associated Press Online, March 25, 2011 Friday 7:40 AM GMT

U.S. efforts to counter China's growing influence in the developing world are a likely casualty of the budget battles dominating Washington's politics, as chunks of the foreign aid program face the ax. That could hurt not just the world's poor, but America's reach in emerging markets where China has ramped up investment and provided easy credit. The Obama administration has sought to step up its engagement in Asia, the Pacific, Africa, Central Asia and Latin America. Development aid is a key plank of its strategy. The State Department argues it is "as central to advancing America's interests as diplomacy and defense." But that aid, like all federal spending, is under pressure as lawmakers debate how to reel in the government's deficit, forecast at \$1.5 trillion this year. Much of the red ink is financed by China.

Reactors

Mexico: Laguna Verde risks, such as Fukushima, warn experts

Periódico La Jornada, Viernes 25 de marzo de 2011, p. 45

Although federal and state governments have said the Laguna Verde nuclear plant is safe, experts in the field and environmentalists disagree, arguing that presents a "very similar situation to that of Fukushima, and reactor design that is defective, near the sea and located in a seismic zone." Warned that this is added an extra variable "has an irresponsible and corrupt administration," which affects maintenance.

France: Sarkozy: any reactor that fails stress test will close

BRUSSELS, March 25 (Reuters) - French President Nicolas Sarkozy said on Friday any European nuclear reactor that fails planned stress tests will be closed. "If they don't pass these tests, they will be closed," he said. Sarkozy said European leaders had decided that all nuclear reactors would undergo stress tests. "The commission will establish the framework of the controls, the independent nuclear authorities will carry them out and make them public and then European nuclear regulators will say how serious these results are," Sarkozy said at a news conference following a meeting of European leaders in Brussels.

EU leaders to debate nuclear "stress tests" in wake of Japan scare

Deutsche Presse-Agentur, March 25, 2011 Friday 10:22 AM EST

EU leaders to debate nuclear "stress tests" in wake of Japan scare European Union leaders gathered for a second day of talks in Brussels at their annual spring summit, with nuclear safety expected to dominate Friday's conversation after they found common ground on economic reforms and Libya the night before. EU leaders have been consistent in expressing their sympathy with Japan, but have differed on what measures should be put in place as part of the lessons learned from the Asian country's troubles.

Japan: Fukushima shutdown could take one month: TEPCO

Agence France Presse, March 25, 2011 Friday 5:41 AM GMT

Tokyo Electric Power Co (TEPCO) admitted Friday it may take at least another month to achieve a cold shutdown of all reactors -- when temperatures inside fall below boiling point and its cooling systems are back at atmospheric pressure.

"We are still in the process of assessing the damage at the plant, so we can't put a deadline on when the cooling operations will work again. It may take more than a month, who knows," a TEPCO spokesman told AFP. Temperatures at one reactor spiked at one point to 400 degrees Celsius (752 degrees Fahrenheit) this week before stabilising. Temperatures inside reactors one to four remain around boiling point, a nuclear safety agency official said.

Japan Fukushima reactor vessel may be damaged: operator

Agence France Presse, March 25, 2011 Friday 7:46 AM GMT

One of the reactor vessels at a stricken Fukushima nuclear power station in Japan may be damaged, the plant's operator said Friday, after high levels of radiation were detected. "It is possible that the pressure vessel containing the fuel rods in the reactor is damaged," a spokesman from Tokyo Electric Power Co. told AFP. The new safety scare is a setback to urgent efforts to restore power to the all-important cooling systems at the Fukushima No. 1 plant, located 250 kilometres (155 miles) north of Tokyo.

Russia: Historic Documents Show Politburo Skepticism of Chernobyl Safety

Der Spiegel, 2011-03-24

Lies and deception were commonplace in the Soviet nuclear industry. Now Kremlin records which have been obtained by SPIEGEL reveal that Russian experts already had their doubts about the Chernobyl reactor before the 1986 disaster... G.A. Shasharin (deputy energy minister): "The personnel had no idea that this type of reactor can release so much energy. We didn't know it either. We were enthusiastic about this reactor but never truly convinced of its safety. There was only one protective system, and everyone assumed that it was no good. The Smolensk and Kursk nuclear power plants, as well as the two near Leningrad, should also be shut down. They can't even be refurbished anymore." Mikhail Solomentsev (politburo member): "You knew that the reactor wasn't safe?" Shasharin: "Yes. But it was never documented in writing. There was a great deal of resistance to letting this become known. The Academy of Sciences and the Ministry of Medium Machine Building (responsible for nuclear energy) demanded a constant increase in the production of nuclear energy until the year 2000."

Spain: Calls to shut down 'Europe's Fukushima'

Euractiv, 2011-03-21

A 40-year old Spanish nuclear power plant built to the same design model as Fukushima's disaster-struck reactor number one has become engulfed by calls for it to be shut down, while Brussels is questioning the safety of EU installations and has pushed for stress tests of nuclear power plants. Antonio Cornado, communications manager for Spain's Consejo de Seguridad Nuclear (Nuclear Safety Council) regulator, confirmed to EurActiv that the Santa Maria de Garona plant, about 70 miles south of Bilbao, contains a General Electric Mark 1 Boiling Water Reactor (BWR) system, of a similar variety to that in Fukushima's reactor number one. "It's the same type," he said. "It is a Mark 1, but there are several performance [enhancements] that are better than the original design. There have been a lot of safety modifications." Questions about the model's safety were "closed" 20 years ago, he added.

Russia Ready to Vouch For Safety of NPPs Built in Home Country. Abroad

MOSCOW. March 24 (Interfax) - Russia is ready to vouch for the safety of nuclear power plants built on the national territory and abroad, President Dmitry Medvedev said in a video-blog posted on the Kremlin website. "I think we should build new nuclear power units with the maximum degree of safety rather than extend the useful life of the existent units. Our atomic energy specialists are ready to vouch for the nuclear power plants they built on the domestic territory and in countries that signed related contracts with Russia," Medvedev said. The nuclear power plant Russia is building in Turkey will have a brand new control system with the operation period equal to the plant's service life, he said.

Japan: Kyushu Electric Defers Restart of Two Nuclear Reactors

Fukuoka, March 24 Kyodo -- (EDS: CORRECTING DATE IN 4TH GRAF, ADDING CRITIC'S COMMENT IN LAST GRAF) Kyushu Electric Power Co. said Thursday it has decided to delay rebooting two nuclear reactors at its Genkai nuclear power plant in Saga Prefecture that it had suspended for servicing in view of the accident at the Fukushima Daiichi nuclear plant. Toshio Manabe, the regional utility's president, told a news conference his company has decided to postpone rebooting the No. 2 and No. 3 reactors from their originally scheduled times of late March and early April.

Japan: Three Workers Exposed to High Radiation; 2 Sustain Possible Burns

Tokyo, March 24 Kyodo -- (EDS: ADDING INFO) Three workers were exposed to high-level radiation Thursday while laying cable at the troubled Fukushima Daiichi nuclear plant, and two of them were taken to hospital due to possible radiation burns to their feet, the nuclear safety agency and the plant operator said. The three men in their 20s and 30s were exposed to radiation amounting to 173 to 180 millisieverts at around 12:10 p.m. while laying cable underground at the No. 3 reactor's turbine building. The two hospitalized are workers of plant operator Tokyo Electric Power Co.'s affiliated firm and had their feet under water while carrying out the work from 10 a.m., according to the utility known as TEPCO and the Nuclear and Industrial Safety Agency. The two, who were diagnosed with possible beta ray burns at a Fukushima hospital, will later be sent to the National Institute of Radiological Sciences in Chiba Prefecture, the agency said. TEPCO said radioactive water may have seeped through the workers' radiation protective gear, causing radioactive materials in the water to stick to their skin. The burns are caused by direct exposure to beta rays, the utility added.

Ukraine, China Could Supply Nuclear Fuel to Belarus Besides Russia

MINSK. March 24 (Interfax) - Belarus will not veer away from an opportunity to draw alternative suppliers of nuclear fuel, if this is good for the economy, said Nikolai Grusha, director of the Belarusian Energy Ministry's Nuclear Energy Department. "The agreement on the construction of a nuclear plant says that Russia will supply fuel to the nuclear power plant through its service life, which does not mean, however, that we will not consider drawing other suppliers, if this has sense," Grusha said at a press conference in Minsk on Wednesday. Ukraine and China could supply nuclear fuel to Belarus in the future besides Russia, he said.

Safety

China: Daya Bay reactor operator reassures Hong Kong residents

South China Morning Post, March 25, 2011 Friday

The operator of the Daya Bay nuclear power plant has gone on a public relations blitz to reassure Hongkongers a nuclear accident similar to Japan's present crisis is virtually impossible. The plant was built to stringent designs and standards, which enabled it to withstand a powerful earthquake, the operator said yesterday. Moreover, its location meant tidal waves were highly unlikely. Chen Tai, a nuclear safety specialist at the plant, said tsunamis were unlikely to develop in shallow coastal waters. The biggest recorded in Guangdong waters was less than 50 centimetres. "The only serious casualty I can recall is that one person suffered from a broken finger," he said.

Japan: Don't let fear beat nuclear science: Despite a classic once-in-a-lifetime Black Swan event, Japan's Fukushima plant has not witnessed a meltdown

The Business Times Singapore, March 25, 2011 Friday

AS BATTERED Japan struggles to cool down the radioactive cores of its nuclear reactors at Fukushima Daiichi, renewed questions about the safety of nuclear power have emerged. There are even predictions that this disaster would end what was seen as a nuclear renaissance, 25 years after the Chernobyl nuclear accident in what is now Ukraine. In the midst of this media glare and concern, the compelling question is: Does the Fukushima Daiichi emergency prove that nuclear power reactors are inherently unsafe? If not, then this question needs to be answered: Does the incident show just how robust designs are with multiple fail-safe systems built in?

Russia: Fast reactors will better respond to present-day challenges - Kiriyaenko

Moscow Interfax-AVN Online 0920 GMT 25 Mar 11

"They may have a stable active zone, work on natural uranium and be used as afterburners of their own spent nuclear fuel or spent nuclear fuel from thermal reactors. We have made the decision here in Russia, in the context of new technological platform, to put the stake primarily on

fast reactors," Kiriyenko told U.S. nuclear industry representatives and reporters at the Russian embassy in Washington on Wednesday.

Japan's TEPCO under pressure over injured workers

Agence France Presse, March 25, 2011 Friday 8:35 AM GMT

Japan ordered the operator of a stricken nuclear plant to step up safety Friday after three workers in ill-fitting shoes suffered burns when they sloshed through highly radioactive water. The trio, aged in their 20s and 30s, were placing electric cables in a basement as part of efforts to rebuild cooling systems at the quake and tsunami damaged reactor three to prevent high-level radiation from spewing out. Two of the men, who were employed by a subcontractor, were hospitalised after suffering radiation burns from beta rays, which are powerful enough to transform a person's DNA makeup and cause potential cancer and death. The workers stepped into a pool of water containing iodine, caesium and cobalt 10,000 times the normal level, said the operator, the Tokyo Electric Power Company (TEPCO), which runs the stricken Fukushima plant. All were exposed to radiation of up to 180 millisieverts -- more than triple the usual limit for plant workers and close to the recently hiked government-imposed 250 millisievert limit for emergency duty.

Security

How Iran Controlled Stuxnet

Tabriz Azarbayjan in Persian 06 Dec 10

Azerbaijan News Service: Informed experts in Iran are saying Iran has acquired the necessary knowledge to contain the Stuxnet virus and is prepared to convey it to applicant nations. Some Iranian officials have told Nuclear Iran that Stuxnet was seen for the first time 15 years ago in Bushehr in the computers of some operators but it never caused any harm to installations because the power plant's internal networks are completely isolated and protected. In Natanz also the 2010 Yukia Amano report showed that production continued until four days after the report's publication and nothing stopped working.

Global Nuclear Open Source Information Service (GNOSIS) 2011-03-25

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

From: Burnell, Scott
To: Sheehan, Neil; Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth; McIntyre, David; Couret, Ivonne; Janbergs, Holly; Screnci, Diane; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Uselding, Lara; Dricks, Victor
Cc: Anderson, Brian; Khanna, Meena
Subject: RE: GI 199 Talking Points/Q&As
Date: Friday, March 25, 2011 10:48:55 AM

Understood.

From: Sheehan, Neil
Sent: Friday, March 25, 2011 10:48 AM
To: Burnell, Scott; Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth; McIntyre, David; Couret, Ivonne; Janbergs, Holly; Screnci, Diane; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Uselding, Lara; Dricks, Victor
Cc: Anderson, Brian; Khanna, Meena
Subject: RE: GI 199 Talking Points/Q&As

The problem is, we have different PAOs providing different messages. The history of this, and specifically when the change occurred, would help me to be a more effective PAO.

From: Burnell, Scott
Sent: Friday, March 25, 2011 10:47 AM
To: Sheehan, Neil; Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth; McIntyre, David; Couret, Ivonne; Janbergs, Holly; Screnci, Diane; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Uselding, Lara; Dricks, Victor
Cc: Anderson, Brian; Khanna, Meena
Subject: RE: GI 199 Talking Points/Q&As

I'm not certain where the disconnect was, I'm just trying to make sure our info going forward is accurate.

From: Sheehan, Neil
Sent: Friday, March 25, 2011 10:45 AM
To: Burnell, Scott; Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth; McIntyre, David; Couret, Ivonne; Janbergs, Holly; Screnci, Diane; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Uselding, Lara; Dricks, Victor
Cc: Anderson, Brian; Khanna, Meena
Subject: RE: GI 199 Talking Points/Q&As

If that's the case, that represents a change.

From Page 20 of the Comm Plan we received on Sept. 14, 2010, regarding GI-199:

"Listed below are plants that are currently above the Generic Issues Program (GIP) numerical risk threshold for an issue to continue to be evaluated for possible regulatory action. During the analysis, this group of plants were referred to as the 'plants in the *continue* region.' " The list of 27 reactors follows that.

The question is, when did we broaden back out to all of the plants? And why was this not

AL/32

communicated to us?

From: Burnell, Scott
Sent: Friday, March 25, 2011 10:35 AM
To: Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth; McIntyre, David; Couret, Ivonne; Janbergs, Holly; Screnci, Diane; Sheehan, Neil; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Uselding, Lara; Dricks, Victor
Cc: Anderson, Brian; Khanna, Meena
Subject: RE: GI 199 Talking Points/Q&As
Importance: High

All;

A discussion with the NRR branch chief in charge of GI-199 confirms that ALL U.S. PLANTS will receive the Generic Letter on this issue (although its title might not reference GI-199) later this year.

ALL 104 plants will be covered by NRC actions based on GI-199.

Scott

From: Burnell, Scott
Sent: Friday, March 25, 2011 10:06 AM
To: Anderson, Brian
Cc: Harrington, Holly; Brenner, Eliot
Subject: FW: GI 199 Talking Points/Q&As
Importance: High

We need EXTREME clarity on the GL – ALL 104 plants, or all CEUS plants??

From: Harrington, Holly
Sent: Friday, March 25, 2011 9:59 AM
To: Burnell, Scott
Subject: FW: GI 199 Talking Points/Q&As

Scott – please respond to Eliot immediately

From: Brenner, Eliot
Sent: Friday, March 25, 2011 9:52 AM
To: Harrington, Holly
Subject: Re: GI 199 Talking Points/Q&As

We have a california problem. Aren't ALL plants getting a letter or inspected under the letter that went out last week? I need to be able to say something to california press that makes them feel loved and wanted if necessary, and the chairman will get the question as well.

Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200

(b)(6)

Sent from my Blackberry

From: Harrington, Holly

To: Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth; McIntyre, David; Chandrathil, Prema; Dricks, Victor; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Screnci, Diane; Sheehan, Neil; Uselding, Lara

Cc: Anderson, Brian

Sent: Fri Mar 25 09:12:49 2011

Subject: GI 199 Talking Points/Q&As

Thanks for Brian for these!

They are also posted in our G drive's Japan folder and on WebEOC

From: [PETIT Evangelia](#)
To: wgpcnews@oecd-nea.org
Cc: [BOUCHOT Emmanuel](#); [CLOS Adeline](#)
Subject: [wgpcnews] TR: [NEA Secretariat WGPC] About ASN actions following the event in Japan: a message to Flashnews?
Date: Friday, March 25, 2011 10:51:05 AM
Attachments: [110323 - Information Note.doc](#)
[12.03 Lettre du Premier ministre-saisine de l'ASN.PDF](#)

Bonjour,

Veuillez trouver ci-joint une note d'information au sujet de l'audit demandé à l'ASN par le Premier Ministre, ainsi que la lettre adressée à l'ASN.

Cordialement



Evangelia Petit
Autorité de sûreté nucléaire (ASN)
Chef du Bureau Information des Publics
Responsable relations médias et affaires publiques
tél : 01 40 19 86 61
mail : evangelia.petit@asn.fr

De : Jean.GAUVAIN@oecd.org [mailto:Jean.GAUVAIN@oecd.org]
Envoyé : vendredi 25 mars 2011 11:12
À : BOUCHOT Emmanuel
Cc : CLOS Adeline
Objet : [NEA Secretariat WGPC] About ASN actions following the event in Japan: a message to Flashnews?

Bonjour,

Si vous avez une « press release » au sujet de l'audit demandé à l'ASN suite à Fukushima, ce serait bien de l'envoyer à wgpcnews@oecd-nea.org ...

Of course I leave it up to you
Best Regards

Jean Gauvain.- NEA/NSD - Phone +33 1 45 24 10 52 - Mobile (b)(6)

AL/33

Paris, 24 Mars 2011

Information Note

The Prime Minister tasked ASN with auditing the French nuclear installations

French Prime Minister François Fillon, announced on 15 March 2011 to the French National Assembly that an audit of French nuclear facilities will be conducted.

By the open letter dated on 23 March 2011, the French Prime Minister asked ASN, in accordance with the Transparency and Security Act (TSN Act), to conduct a safety audit of the French nuclear facilities, plant by plant, with regard to the on-going Fukushima accident in Japan.

The audit, conducted "openly and transparently" will cover the flood and earthquake external hazards, the power supplies and cooling capability losses as well as operational management of emergency situations. The audit is to be conducted in cooperation with both the European Nuclear Safety Regulators Group (ENSREG) and Western European Nuclear Regulators Association (WENRA).

It aims to determine whether improvements should be implemented in light of lessons to be learned from the accident in Fukushima. The first conclusions are expected by the end of 2011.

005698

Monsieur le Président,

Le Japon a été frappé par un séisme puis un tsunami d'une ampleur exceptionnelle. Les pouvoirs publics sont pleinement mobilisés pour aider ce pays qui subit le drame humain le plus important depuis 1945, et apporter à nos ressortissants vivant au Japon l'appui nécessaire dans ces circonstances.

Au bilan humain extrêmement élevé et aux dégâts matériels immenses provoqués par ces catastrophes naturelles s'est ajouté un accident nucléaire grave touchant la centrale de Fukushima. Pour nos concitoyens de métropole et d'Outre-mer, il est essentiel de disposer d'une information transparente, fiable et disponible dans les meilleurs délais sur les conséquences de cet accident. L'Autorité de sûreté nucléaire (ASN) et l'Institut de radioprotection et de sûreté nucléaire (IRSN) contribuent tout particulièrement à cette expertise et à sa restitution en temps réel. Il conviendra ensuite de tirer les leçons de cet accident pour nos installations nucléaires et c'est pour cette raison que j'ai annoncé au Parlement le 15 mars mon souhait que la sûreté nucléaire de chaque centrale nucléaire fasse l'objet d'un examen attentif.

En application de l'article 8 de la loi n°2006-686 du 13 juin 2006 relative à la transparence et à la sécurité en matière nucléaire, je vous demande de réaliser une étude de la sûreté des installations nucléaires, en priorité les centrales nucléaires, au regard de l'accident en cours dans la centrale de Fukushima. Cet audit portera sur cinq points : les risques d'inondation, de séisme, de perte des alimentations électriques et de perte du refroidissement ainsi que la gestion opérationnelle des situations accidentelles. Il est complémentaire aux démarches de sûreté mises en œuvre par les exploitants nucléaires sous votre contrôle. Je souhaite que vous examiniez, installation par installation, si des améliorations sont nécessaires à la lumière des enseignements qui seront tirés de l'accident de Fukushima.

Je souhaite que vous puissiez établir sous un mois un cahier des charges et un calendrier pour cette évaluation. Je vous demande de veiller à assurer la cohérence de cette démarche avec les travaux menés sur le plan européen par le groupe ENSREG (european nuclear safety regulators group) et l'association WENRA (western european nuclear regulators association) auxquels vous participez.

Sur la base de ce cahier des charges, il conviendrait que vous livriez vos premières conclusions pour la fin de l'année 2011.

J'attache la plus haute importance à ce que cette démarche soit effectuée de manière ouverte et transparente : le haut comité pour la transparence et l'information sur la sécurité nucléaire (HCTISN) y contribuera à toutes les étapes. Il conviendra également d'informer les commissions locales d'information (CLI) au fur et à mesure de l'avancement de vos travaux.

Je vous prie de croire, Monsieur le Président, à l'assurance de toute ma considération.



François FILLON

Monsieur André-Claude LACOSTE
Président de l'Autorité de sûreté nucléaire
6, place du Colonel Bourgoin
75572 PARIS CEDEX 12

From: Hayden, Elizabeth
To: Kammerer, Annie
Subject: RE: NextEra Energy Questions
Date: Friday, March 25, 2011 11:20:00 AM

Thanks, Annie

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: Kammerer, Annie
Sent: Thursday, March 24, 2011 10:26 PM
To: Hayden, Elizabeth; Hiland, Patrick
Cc: Burnell, Scott; Kauffman, John; Munson, Clifford; Ake, Jon; Bensi, Michelle
Subject: RE: NextEra Energy Questions

Here's a possible response. Perhaps Cliff or Jon can take a look.

- 1) We are trying to understand why our plants in low seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk. Can you help explain?

First, it should be clarified that the list of 27 plants is only provided to show that there is sufficient reason to move the project to the next phase of the generic issue program. These are not the only plants that will be reassessed. Due to the significant uncertainty in the data available, all plants in the central and eastern US will receive the generic letter and will be reassessed. Further, in light of the events in Japan, there is discussion within the NRC of including those in the west as well.

The GI-199 study considers both overall risk and also changes in risk. Both the approach to assessing seismic hazard and the data available to seismologists have improved significantly since the 1980. As a result, estimates of seismic hazard, although still low, have increased since that time. This is the result of a steady improvement in the understanding of seismic hazard over time. It is important to note that it is not the seismic activity, or the seismic hazard itself, that has increased; but rather it is the understanding of it that has changed. (Information on how the USGS seismic hazard maps are developed is available at the USGS website). The larger change in the risk (in terms of core damage frequency) associated with some sites in the study directly reflects the change in assessed hazard.

- 3) My basic understanding, especially in the case of St. Lucie and Duane Arnold is that highly

A 4/30/11

conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

The screening process that was undertaken used data currently available to the NRC, principally from the IPEEE study conducted in the mid-90s. Licensees of nuclear plants in moderate to high seismicity areas tended to provide more detailed information regarding the seismic resistance of the structures, systems, and components than plants in low seismicity areas. Therefore when considering loads beyond the seismic design, NRC staff tended to have more detailed information to rely on for plants in moderate to high seismicity zones; and had to make conservative assumptions for plants in low seismicity regions.

Annie

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 5:11 PM
To: Hiland, Patrick
Cc: Burnell, Scott; Kammerer, Annie; Kauffman, John
Subject: FW: NextEra Energy Questions

Pat,

Can you help me out in answering t least the 2 highlighted questions from FPL? The licensee sounds like this is all a surprise to him.

Beth Hayden

From: Waldron, Michael [mailto:Michael.Waldron@fpl.com]
Sent: Thursday, March 24, 2011 4:03 PM
To: Hayden, Elizabeth
Subject: NextEra Energy Questions

Beth:

Good to speak with you. I will have our licensing folks look for the letter that apparently went out last fall. In the meantime, however, I'm trying to answer a number of questions pertaining to the article below.

1) We are trying to understand why our plants in low seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk... can you help explain?

2) How does the Commission plan to conduct this evaluation? For instance, are you asking us for data, are you running models based on government geologic information? Is there something specific we should be preparing for if, in fact, you are going to do this review?

3) My basic understanding - especially in the case of St. Lucie and Duane Arnold - is that highly conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

As you can imagine, this list has raised a number of questions for us since geologic maps tend to tell a different story. We're really just trying to figure this out at this point. If you could respond as quickly as possible, I would certainly appreciate it. Thanks again for your help.

Mike

US NRC to check seismic risk of 27 nuke units;

Washington (Platts)--23Mar2011/1033 am EDT/1433 GMT

The US Nuclear Regulatory Commission will conduct a seismic risk assessment of Entergy's Indian Point plant in New York next year, the first of 27 reviews of nuclear power units at 17 plants, agency spokeswoman Beth Hayden said Tuesday.

SepRrately, NRC Chairman Gregory Jaczko "has personally committed to inspect Indian Point," located about 35 miles north of New York City, although "no date has not been determined" for the visit, Hayden said.

The NRC reported these nuclear units will receive the seismic review next year: Indian Point 2, Indian Point 3, Limerick 1, Limerick 2, Peach Bottom 2, Peach Bottom 3, Seabrook, Crystal River 3, Farley 1, Farley 2, North Anna 1, North Anna 2, Oconee 1, Oconee 2, Oconee 3, St. Lucie 1, St. Lucie 2, Sequoyah 1, Sequoyah 2, Summer, Watts Bar 1, Dresden 2, Dresden 3, Duane Arnold, Perry 1, River Bend and Wolf Creek.

The earthquake risk review is part of a new assessment NRC conducted based on 2008 revised US Survey data of seismic activity in the eastern and central US, said Scott Burnell, an NRC spokesman. The review pre-dated the earthquake and tsunami that wreaked havoc this month on the Fukushima nuclear stations.

Burnell categorized the findings as a "very broad bush indicator" that is not sufficient to determine the odds for earthquakes at a given nuclear reactor site.

The NRC is planning to send letters to plant operators late this year.

"The expectation is this analysis would show where plants could improve what already is an acceptable response to seismic events," Burnell said. The 27 units selected for review showed the largest increase in seismic risk from a 1980s-era USGS study, he said.

The Indian Point site was selected as the first to be inspected by NRC next year because the revised seismic data showed the largest increase in seismic risk increase from the previous study, Hayden said.

Senator Barbara Boxer, chairman of of the Senate Environment and Public Works Committee

and Senator Dianne Feinstein, both Democrats, on March 16 wrote to Jaczko asking that NRC inspect both the Diablo Canyon and San Onofre nuclear units, saying they are concerned that the plants "are near earthquake faults."

New York Governor Andrew Cuomo, a Democrat, urged NRC to shut Indian Point during the past decade when he was the state's attorney general. Cuomo raised concerns about the two-unit plant's proximity to the Ramapo fault and its discharge of heated water into the Hudson River.

"It is essential that the NRC move quickly to answer the significant and long-standing safety questions surrounding Indian Point," Cuomo said in a statement Tuesday.

Entergy said in a statement Tuesday: "All citizens of New York need to have access to the pertinent facts regarding Indian Point. We strongly believe that knowing the facts will answer the public's questions and will also clearly demonstrate that this facility is safe -- designed with a margin of safety beyond the strongest earthquake anticipated in the area. Accordingly, Entergy welcomes Governor Cuomo's call for a review of Indian Point by the federal Nuclear Regulatory Commission and stands ready to assist."



**Michael Waldron | Director
Nuclear Communications**

Office: 561.694.3618 | **Mobile:** (b)(6)

Email: Michael.Waldron@npl.com

From: Breskovic, Clarence
To: Breskovic, Clarence
Subject: Recent CRS Reports on Earthquakes, Japan, Fukushima....
Date: Friday, March 25, 2011 12:13:27 PM
Attachments: [CRS Earthquakes.pdf](#)
[CRS Japan 2011 Experts.pdf](#)
[CRS Fukushima Crisis 1.pdf](#)
[CRS Tsunami Programs.pdf](#)
[CRS Earthquake DOD Response.pdf](#)

Please see attached PDF files.

Earthquakes: Risk, Detection, Warning, and Research
U.S. Tsunami Programs: A Brief Overview
Japan 2011 Earthquake: U.S. Department of Defense (DOD) Response
Fukushima Nuclear Crisis
Japan 2011 Disaster: CRS Experts

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

AL/35



Earthquakes: Risk, Detection, Warning, and Research

Peter Folger

Specialist in Energy and Natural Resources Policy

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Summary

The United States faces the possibility of large economic losses from earthquake-damaged buildings and infrastructure. The Federal Emergency Management Agency has estimated that earthquakes cost the United States, on average, over \$5 billion per year. California, Oregon, and Washington account for nearly \$4.1 billion (77%) of the U.S. total estimated average annualized loss. California alone accounts for most of the estimated annualized earthquake losses for the nation.

A single large earthquake, however, can cause far more damage than the average annual estimate. The 1994 Northridge (CA) earthquake caused as much as \$26 billion (in 2005 dollars) in damage and was one of the costliest natural disasters to strike the United States. One study of the damage caused by a hypothetical magnitude 7.8 earthquake along the San Andreas Fault in southern California projected as many as 1,800 fatalities and more than \$200 billion in economic losses. An issue for the 112th Congress is whether existing federally supported programs aimed at reducing U.S. vulnerability to earthquakes are an adequate response to the earthquake hazard.

Under the National Earthquake Hazards Reduction Program (NEHRP), four federal agencies have responsibility for long-term earthquake risk reduction: the U.S. Geological Survey (USGS), the National Science Foundation (NSF), the Federal Emergency Management Agency (FEMA), and the National Institute of Standards and Technology (NIST). They variously assess U.S. earthquake hazards, deliver notifications of seismic events, develop measures to reduce earthquake hazards, and conduct research to help reduce overall U.S. vulnerability to earthquakes. Congressional oversight of the NEHRP program might revisit how well the four agencies coordinate their activities to address the earthquake hazard. Better coordination was a concern that led to changes to the program in legislation enacted in 2004 (P.L. 108-360).

P.L. 108-360 authorized appropriations for NEHRP through FY2009. Total funding enacted from reauthorization through FY2009 was \$613.2 million, approximately 68% of the total amount of \$902.4 million authorized by P.L. 108-360. Congress appropriated \$131.2 million for NEHRP in FY2010, similar to FY2009 funding levels. Also, the American Recovery and Reinvestment Act (ARRA; P.L. 111-5) provided some additional funding for earthquake activities under NEHRP. What effect funding at the levels enacted through FY2010 under NEHRP has had on the U.S. capability to detect earthquakes and minimize losses after an earthquake occurs is difficult to assess. The effectiveness of the NEHRP program is a perennial issue for Congress: it is inherently difficult to capture precisely, in terms of dollars saved or fatalities prevented, the effectiveness of mitigation measures taken before an earthquake occurs. A major earthquake in a populated urban area within the United States would cause damage, and a question becomes how much damage would be prevented by mitigation strategies underpinned by the NEHRP program.

Legislation was introduced during the 111th Congress (H.R. 3820) that would have made changes to the program and would have authorized appropriations totaling \$906 million over five years for NEHRP. Ninety percent of the funding would have been designated for the USGS and NSF, and the remainder for FEMA and NIST. The bill passed the House but not the Senate. Similar legislation will likely be introduced in the 112th Congress.

Contents

Introduction	1
National Earthquake Hazards Reduction Program (NEHRP)	1
A Shift in Program Emphasis to Hazard Reduction.....	2
NEHRP Legislation in the 111 th Congress.....	4
Earthquake Hazards and Risk.....	5
United States National Seismic Hazard Map.....	5
2008 Update to the National Seismic Hazard Map.....	6
Earthquake Forecast for California	7
How Many Earthquakes Occur Each Year?.....	7
Earthquake Fatalities.....	8
Estimating Potential Losses from Earthquakes	9
A Decrease in Estimated Loss?.....	11
The New Madrid Seismic Zone.....	12
Earthquakes in Haiti, Chile, and Japan—Some Comparisons	13
January 12, 2010, Magnitude 7.0 Earthquake in Haiti.....	14
February 27, 2010, Magnitude 8.8 Earthquake in Chile	14
March 11, 2011, Magnitude 9.0 Earthquake in Japan	15
Is There a Similar Risk to the United States?	17
Monitoring.....	17
Advanced National Seismic System (ANSS)	17
ANSS Funding.....	18
Dense Urban Networks	18
Backbone Stations.....	18
National Strong-Motion Project (NSMP).....	19
Regional Networks.....	19
Global Seismic Network (GSN)	19
Detection, Notification, and Warning.....	20
National Earthquake Information Center (NEIC).....	20
ShakeMap.....	21
Prompt Assessment of Global Earthquakes for Response (PAGER).....	23
Pre-disaster Planning: HAZUS-MH	23
Research—Understanding Earthquakes	25
U.S. Geological Survey.....	25
National Science Foundation.....	25
EarthScope.....	25
Network for Earthquake Engineering Simulation.....	26
Conclusion.....	26

Figures

Figure 1. NEHRP Agency Responsibilities and End Users of NEHRP Outcomes	3
Figure 2. Earthquake Hazard in the United States	5

Figure 3. Histogram of the Number of U.S. Earthquakes from 2000 to 2009 by Magnitude (1.0 to 6.9).....	8
Figure 4. Image of the Japan Trench and Location of the March 11, 2011, Earthquake.....	16
Figure 5. Example of a ShakeMap.....	22
Figure 6. Example of PAGER Output for the January 12, 2010, Magnitude 7.0 Haiti Earthquake.....	24

Tables

Table 1. Authorized and Enacted Funding for NEHRP.....	4
Table 2. Earthquakes Responsible for Most U.S. Fatalities Since 1970.....	8
Table 3. U.S. Metropolitan Areas with Estimated Annualized Earthquake Losses of More Than \$10 Million	10

Contacts

Author Contact Information	27
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Introduction

Close to 75 million people in 39 states face some risk from earthquakes. Earthquake hazards are greatest in the western United States, particularly in California, but also in Alaska, Washington, Oregon, and Hawaii. Earthquake hazards are also prominent in the Rocky Mountain region and the New Madrid Seismic Zone (a portion of the central United States), as well as in portions of the eastern seaboard, particularly South Carolina. Given the potentially huge costs associated with a large, damaging earthquake in the United States, an ongoing issue for Congress is whether the federally supported earthquake programs are appropriate for the earthquake risk.

Under the National Earthquake Hazards Reduction Program (NEHRP), the federal government supports efforts to assess and monitor earthquake hazards and risk in the United States. Four federal agencies responsible for long-term earthquake risk reduction coordinate their activities under NEHRP: the U.S. Geological Survey (USGS), the National Science Foundation (NSF), the Federal Emergency Management Agency (FEMA), and the National Institute of Standards and Technology (NIST). Congress last made changes to NEHRP in 2004 (P.L. 108-360), and authorized appropriations through FY2009 for a total of \$902.4 million over five years. A bill introduced in the 111th Congress, H.R. 3820 (Title I), would have made further changes to the program and authorized appropriations through FY2014, but it was not enacted.

This report discusses:

- NEHRP—the multi-agency federal program to reduce the nation’s risk from earthquakes;
- earthquake hazards and risk in the United States;
- federal programs that support earthquake monitoring;
- the U.S. capability to detect earthquakes and issue notifications and warnings; and
- federally supported research to improve the fundamental scientific understanding of earthquakes with a goal of reducing U.S. vulnerability.

National Earthquake Hazards Reduction Program (NEHRP)

In 1977 Congress passed the Earthquake Hazards Reduction Act (P.L. 95-124) establishing NEHRP as a long-term earthquake risk reduction program for the United States. The program initially focused on research, led by USGS and NSF, toward understanding and ultimately predicting earthquakes. Earthquake prediction has proved intractable thus far, and the NEHRP program shifted its focus to minimizing losses from earthquakes after they occur. FEMA was created in 1979 and President Carter designated it as the lead agency for NEHRP. In 1980, Congress passed the Earthquake Hazards Reduction Act (P.L. 96-472), defining FEMA as the lead agency and authorizing additional funding for earthquake hazard preparedness and mitigation for FEMA and the National Bureau of Standards (now NIST).

A Shift in Program Emphasis to Hazard Reduction

NEHRP's original focus on research to predict earthquakes was changed in 1990, when Congress enacted P.L. 101-614. Congress decreased the emphasis on earthquake prediction, clarified the role of FEMA, clarified and expanded the program objectives, and required federal agencies to adopt seismic safety standards for new and existing federal buildings. In 2004, Congress enacted P.L. 108-360 and adjusted the program again by shifting primary responsibility for planning and coordinating NEHRP from FEMA to NIST. P.L. 108-360 also established a new interagency coordinating committee and a new advisory committee, both focused on earthquake hazards reduction.

The current program activities are focused on four broad areas:

- developing effective measures to reduce earthquake hazards;
- promoting the adoption of earthquake hazard reduction activities by federal, state, and local governments, national building standards and model building code organizations, engineers, architects, building owners, and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or “lifelines”;¹
- improving the basic understanding of earthquakes and their effects on people and infrastructure, through interdisciplinary research involving engineering, natural sciences, and social, economic, and decision sciences; and
- developing and maintaining the Advanced National Seismic System (ANSS), the George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES), and the Global Seismic Network (GSN).²

The House Science Committee report in the 108th Congress on H.R. 2608 (P.L. 108-360) noted that NEHRP has produced a wealth of useful information since 1977, but it also stated that the program's potential has been limited by the inability of the NEHRP agencies to coordinate their efforts.³ The committee asserted that restructuring the program with NIST as the lead agency, directing funding towards appropriate priorities, and implementing it as a true interagency program would lead to improvement.

The 2004 law directed the Director of NIST to chair the Interagency Coordinating Committee. Other members of the committee include the directors of FEMA, USGS, NSF, the Office of Science and Technology Policy, and the Office of Management and Budget. The Interagency Coordinating Committee is charged with overseeing the planning, management, and coordination of the program. Primary responsibilities for the NEHRP agencies break down as follows (see also **Figure 1**):

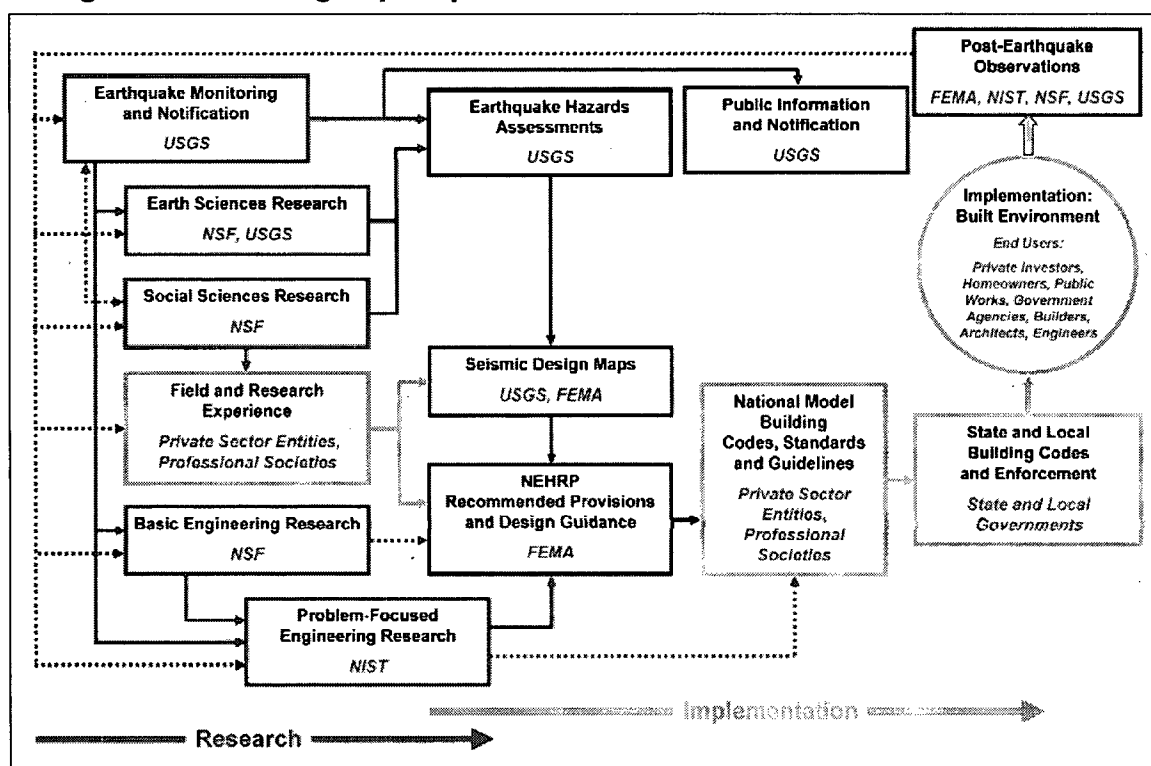
¹ Lifelines are essential utility and transportation systems.

² ANSS is a nationwide network of seismographic stations operated by the USGS. GSN is a global network of stations coordinated by the Incorporated Research Institutions for Seismology (IRIS, a nonprofit organization). NEES is an NSF-funded project that consists of 15 experimental facilities and an IT infrastructure with a goal of mitigating earthquake damage by the use of improved materials, designs, construction techniques, and monitoring tools.

³ U.S. House, Committee on Science, *National Earthquake Hazards Reduction Program Reauthorization Act of 2003*, H.Rept. 108-246 (Aug. 14, 2003), p. 13.

- NIST is the lead NEHRP agency and has primary responsibility for NEHRP planning and coordination. NIST supports the development of performance-based seismic engineering tools and works with FEMA and other groups to promote the commercial application of the tools through building codes, standards, and construction practices.
- FEMA assists other agencies and private-sector groups to prepare and disseminate building codes and practices for structures and “lifelines”, and aids development of performance-based codes for buildings and other structures.
- USGS conducts research and other activities to characterize and assess earthquake risks, and (1) operates a forum, using the National Earthquake Information Center (NEIC), for the international exchange of earthquake information; (2) works with other NEHRP agencies to coordinate activities with earthquake reduction efforts in other countries; and (3) maintains seismic hazard maps in support of building codes for structures and lifelines, and other maps needed for performance-based design approaches.
- NSF supports research to improve safety and performance of buildings, structures, and lifelines using the large-scale experimental and computational facilities of NEES and other institutions engaged in research and implementation of NEHRP.

Figure 1. NEHRP Agency Responsibilities and End Users of NEHRP Outcomes



Source: NEHRP program office at http://www.nehrp.gov/pdf/ppt_sdr.pdf (modified by CRS).

Table 1 shows the authorized and enacted appropriations for NEHRP from FY2005 through FY2010. The total enacted amount for FY2005-FY2009 was \$613.2 million, or 68% of the \$902.4 million total amount authorized in P.L. 108-360 over the five-year span. President Obama requested a total of \$129.7 million for NEHRP in FY2011, even though authorization of appropriations for the program under P.L. 108-360 expired at the end of FY2009.

Table 1. Authorized and Enacted Funding for NEHRP
(\$ millions)

		USGS	NSF	FEMA	NIST	Total
FY2005	Authorized	77.0	58.0	21.0	10.0	166.0
	Enacted	58.4	53.1	14.7	0.9	127.1
FY2006	Authorized	84.4	59.5	21.6	11.0	176.5
	Enacted	54.5	53.8	9.5	0.9	118.7
FY2007	Authorized	85.9	61.2	22.3	12.1	181.5
	Enacted	55.4	54.2	7.2	1.7	118.5
FY2008	Authorized	87.4	62.9	23.0	13.3	186.6
	Enacted	58.1	53.6	6.1	1.7	119.5
FY2009	Authorized	88.9	64.7	23.6	14.6	191.8
	Enacted	61.2	55.0	9.1	4.1	129.4
FY2010	Enacted	62.8	55.3	9.0	4.1	131.2
FY2011	Requested	62.3	54.3	9.0	4.1	129.7

Source: NEHRP program office, at <http://www.nehrp.gov/pdf/2010NEHRPAnnualReport.pdf>.

Notes: According to the NEHRP program office, ARRA funds are not included. The FY2011 requested budget is the estimated portion of the President's budget request that would be allocated for NEHRP activities. The FY2010 enacted amounts are estimates.

NEHRP Legislation in the 111th Congress

Title I of H.R. 3820, the Natural Hazards Risk Reduction Act of 2009, introduced in the 111th Congress, would have made changes to NEHRP and authorized appropriations for the program through FY2014. The bill was reported by the House Science and Technology Committee on February 26, 2010, and was passed by the House on March 2, 2010. The Senate did not act on the bill. The legislation would have retained NIST as the lead NEHRP agency, and authorized total appropriations of about \$906 million over five years. Title II of H.R. 3820 would have made changes to the National Windstorm Impact Reduction Act (first enacted in 2004 as Title II of P.L. 108-360 and modeled after NEHRP), and Title III would have created an interagency coordinating committee, chaired by the Director of NIST, to oversee the planning and coordination of both the earthquake and wind hazards programs. The single interagency coordinating committee would have replaced the two separate interagency committees overseeing the current earthquake and wind hazards programs.

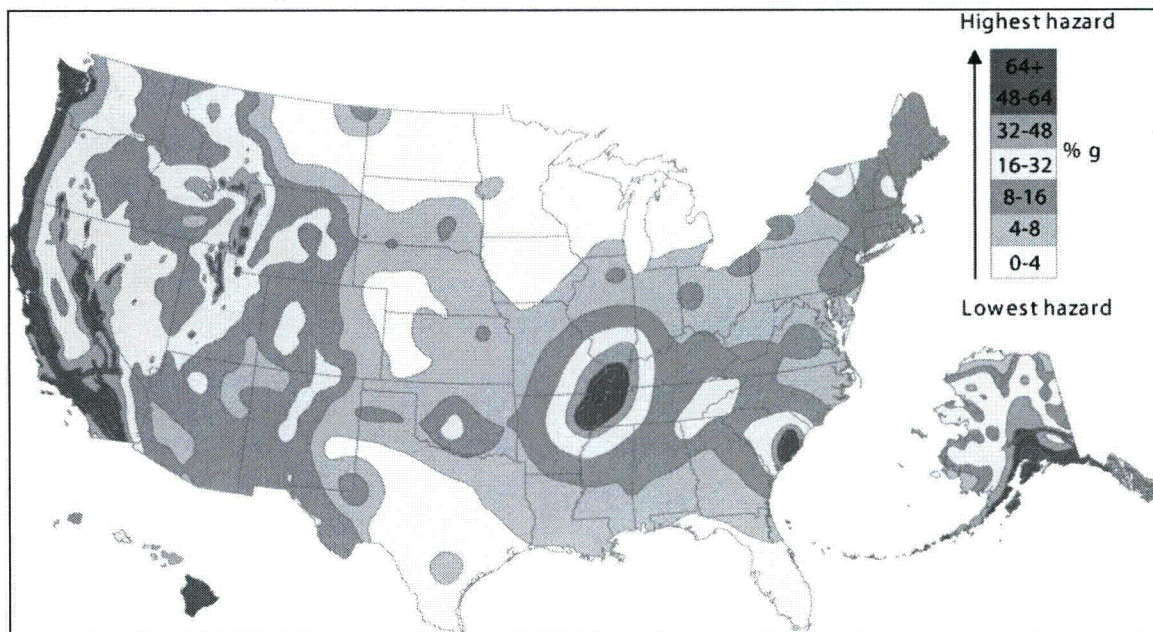
Earthquake Hazards and Risk

Portions of all 50 states and the District of Columbia are vulnerable to earthquake hazards, although risks vary greatly across the country and within individual states. Seismic hazards are greatest in the western United States, particularly in California, Washington, Oregon, and Alaska and Hawaii. Alaska is the most earthquake-prone state, experiencing a magnitude 7 earthquake almost every year and a magnitude 8 earthquake every 14 years on average. (See box below for a description of earthquake magnitude.) Because of its low population and infrastructure density, Alaska has a relatively low risk for large economic losses from an earthquake. In contrast, California has more citizens and infrastructure at risk than any other state because of the state's frequent seismic activity combined with its large population.

United States National Seismic Hazard Map

Figure 2 shows where earthquakes are likely to occur in the United States and how severe the earthquake magnitude and resulting ground shaking are likely to be. The map in **Figure 2** depicts the potential shaking hazard from future earthquakes. It is based on the frequency at which earthquakes occur in different areas and how far the strong shaking extends from the source of the earthquake. In **Figure 2**, the hazard levels indicate the potential ground motion—expressed as a percentage of the acceleration due to gravity (g). In a sense, the map shows the likelihood of where earthquakes could occur, and where the strongest shaking could take place.

Figure 2. Earthquake Hazard in the United States



Source: USGS Fact Sheet 2008-3018 (April 2008), at http://pubs.usgs.gov/fs/2008/3018/pdf/FS08-3018_508.pdf. Modified by CRS.

Note: The bar in the upper right shows the potential ground motion—expressed as a percentage of the acceleration due to gravity (g)—with up to a 1 in 50 chance of being exceeded over a 50-year period.

Figure 2 also shows relatively high earthquake hazard in the Rocky Mountain region, portions of the eastern seaboard—particularly South Carolina—and a part of the central United States known as the New Madrid Seismic Zone (see “The New Madrid Seismic Zone” below). Other portions of the eastern and northeastern United States are also vulnerable to moderate seismic hazard. According to the USGS, 75 million people in 39 states are subject to “significant risk.”⁴

Earthquake Magnitude and Intensity

Earthquake magnitude is a number that characterizes the relative size of an earthquake. It was historically reported using the *Richter scale* (magnitudes in this report are generally consistent with the Richter scale). Richter magnitude is calculated from the strongest seismic wave recorded from the earthquake, and is based on a logarithmic (base 10) scale: for each whole number increase in the Richter scale, the ground motion increases by 10 times. The amount of energy released per whole number increase, however, goes up by a factor of 32. The *moment magnitude* scale is another expression of earthquake size, or energy released during an earthquake, that roughly corresponds to the Richter magnitude and is used by most seismologists because it more accurately describes the size of very large earthquakes. Sometimes earthquakes will be reported using qualitative terms, such as Great or Moderate. Generally, these terms refer to magnitudes as follows: Great ($M > 8$); Major ($M > 7$); Strong ($M > 6$); Moderate ($M > 5$); Light ($M > 4$); Minor ($M > 3$); and Micro ($M < 3$).

Intensity is a measure of how much shaking occurred at a site based on observations and amount of damage. Intensity is usually reported on the Modified Mercalli Intensity Scale as a Roman numeral ranging from I (not felt) to XII (total destruction). The intensity of an earthquake depends on where the earthquake occurs, how it is felt by people, and the damage it causes. The lower numbers of the Modified Mercalli Intensity Scale generally refer to how the earthquake is felt by people, and the higher numbers are based on observed structural damage.

Modified Mercalli intensities that are typically observed at locations near the epicenters of earthquakes of different magnitudes are as follows:

Magnitude 1.0-3.0	Modified Mercalli Intensity I
Magnitude 3.0-3.9	Modified Mercalli Intensity II-III
Magnitude 4.0-4.9	Modified Mercalli Intensity IV-V
Magnitude 5.0-5.9	Modified Mercalli Intensity VI-VII
Magnitude 6.0-6.9	Modified Mercalli Intensity VII-IX
Magnitude 7.0+	Modified Mercalli Intensity VIII or higher

Source: USGS FAQs, at <http://earthquake.usgs.gov/learn/faq/>; and Magnitude/Intensity Comparison, at http://earthquake.usgs.gov/learn/topics/mag_vs_int.php.

2008 Update to the National Seismic Hazard Map

On April 21, 2008, the USGS released National Seismic Hazards Maps that updated the version published in 2002.⁵ Compared to the 2002 version, the new maps indicate lower ground motions (by 10% to 25%) for the central and eastern United States, based on modifications to the ground-motion models used for earthquakes. The new maps indicate that estimates of ground motion for the western United States are as much as 30% lower for certain types of ground motion, called long-period seismic waves, which affect taller, multi-story buildings. Ground motion that affects

⁴ U.S. Geological Survey, Dept. of the Interior, *Earthquake Hazards—A National Threat*, Fact Sheet 2006-3016, March 2006, <http://pubs.usgs.gov/fs/2006/3016/2006-3016.pdf>. During the period 1975-1995, only four states did not experience detectable earthquakes: Florida, Iowa, North Dakota, and Wisconsin. See USGS Earthquake Hazards Program, *Earthquake Facts*, at <http://earthquake.usgs.gov/learn/facts.php>.

⁵ USGS Fact Sheet 2008-3018, “2008 United States National Seismic Hazard Maps” (April 2008), at http://pubs.usgs.gov/fs/2008/3018/pdf/FS08-3018_508.pdf;

shorter buildings of a few stories, called short-period seismic waves, is roughly similar to the 2002 maps. The new maps show higher estimates for ground motion for western Oregon and Washington compared to the 2002 maps, due to new ground motion models for the offshore Cascadia subduction zone. In formulating the 2008 maps, the USGS gave more weight to the probability of a catastrophic magnitude 9 earthquake occurring along the Cascadia subduction zone. The Cascadia subduction zone fault ruptures, on average, every 500 years, and has the potential to generate destructive earthquakes and tsunamis along the coasts of Washington, Oregon, and northern California.

Earthquake Forecast for California

According to a report released on April 14, 2008, California has a 99% chance of experiencing a magnitude 6.7 or larger earthquake in the next 30 years.⁶ The likelihood of an even larger earthquake, magnitude 7.5 or greater, is 46%, and such an earthquake would likely occur in the southern part of the state. The fault with the highest probability of generating at least one earthquake of magnitude 6.7 or greater over the next 30 years is the San Andreas in southern California (59% probability); for northern California it is the Hayward-Rodgers Creek fault (31%). The earthquake forecasts are not predictions (i.e., they do not give a specific date or time), but represent probabilities over a given time period. In addition, the probabilities have variability associated with them. The earthquake forecasts are known as the “Uniform California Earthquake Rupture Forecast (UCERF)” and are produced by a working group composed of the USGS, the California Geological Survey, and the Southern California Earthquake Center.

How Many Earthquakes Occur Each Year?

The USGS estimates that several million earthquakes occur worldwide each year, but the majority are of small magnitude or occur in remote areas, and are not detectable. More earthquakes are detected each year as more seismometers⁷ are installed in the world, but the number of large earthquakes (magnitude greater than 6.0)⁸ has remained relatively constant. Between 2000 and 2008 there were between 2,261 and 3,876 earthquakes per year in the United States, according to the National Earthquake Information Center (NEIC). (See **Figure 3**.)

As **Figure 3** shows, about 98% of earthquakes detected each year by the NEIC are smaller than magnitude 5.0 (light earthquakes); only 63 earthquakes exceeded magnitude 6.0 (strong earthquakes) for the 10-year period (about 0.2% of the total earthquakes detected), for an average of about six earthquakes per year of at least 6.0 magnitude. Larger earthquakes, although infrequent, cause the most damage and are responsible for most earthquake-related deaths. The great San Francisco earthquake of 1906 claimed an estimated 3,000 lives, as a result of both the earthquake and subsequent fires. Over the past 100 years, relatively few Americans have died as a result of earthquakes, compared to citizens in some other countries.⁹ Since 1970, three strong

⁶ USGS Fact Sheet 2008-3027, “Forecasting California’s Earthquakes—What Can We Expect in the Next 30 Years?” (2008), at <http://pubs.usgs.gov/fs/2008/3027/fs2008-3027.pdf>.

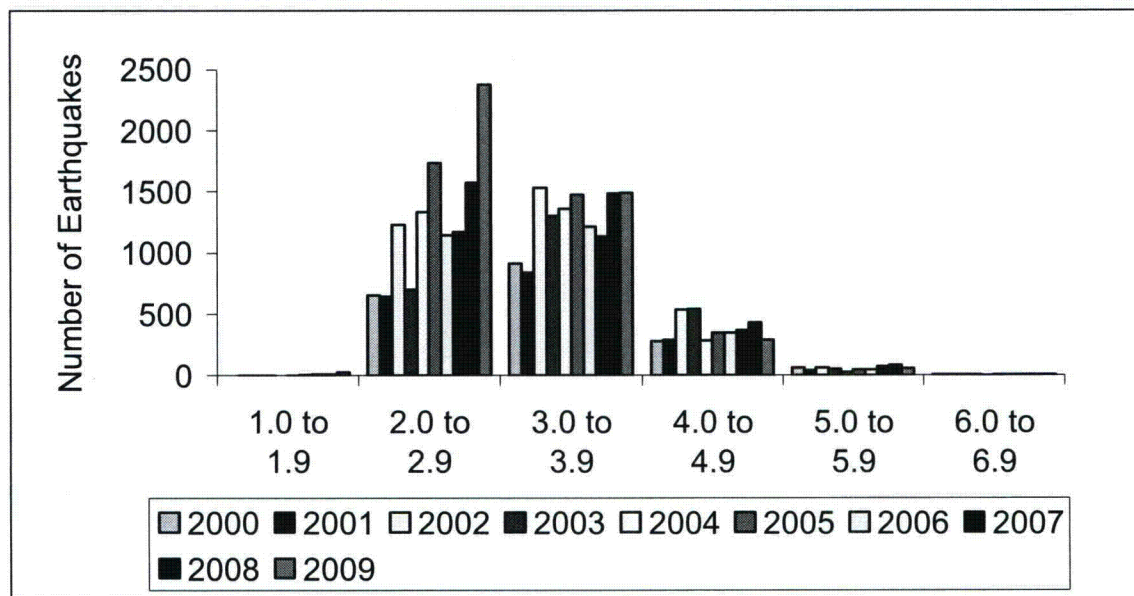
⁷ *Seismometers* are instruments that measure and record the size and force of seismic waves, essentially sound waves radiated from the earthquake as it ruptures. Seismometers generally consist of a mass attached to a fixed base. During an earthquake, the base moves and the mass does not, and the relative motion is commonly transformed into an electrical voltage that is recorded. A *seismograph* usually refers to the *seismometer* and the recording device, but the two terms are often used interchangeably.

⁸ See USGS “Earthquakes Facts and Statistics” at http://neic.usgs.gov/neis/eqlists/eqstats.html#table_2.

⁹ Estimates of earthquake-related fatalities vary, and an exact tally of deaths and injuries is rare. For more information (continued...)

earthquakes (greater than magnitude 6) in the United States were responsible for 188 of the 212 total earthquake-related fatalities. (See **Table 2**.)

Figure 3. Histogram of the Number of U.S. Earthquakes from 2000 to 2009 by Magnitude (1.0 to 6.9)



Source: USGS, "Earthquake Facts and Statistics," at <http://neic.usgs.gov/neis/eqlists/eqstats.html>; data as of January 6, 2011.

Note: Earthquakes greater than magnitude 7.0 and less than 1.0 are not shown. According to the USGS, 6 earthquakes of magnitude 7.0 or greater occurred in the United States between 2000 and 2009.

Table 2. Earthquakes Responsible for Most U.S. Fatalities Since 1970

Date	Location	Magnitude	Deaths
February 9, 1971	San Fernando Valley, CA	6.6	65
October 18, 1989	Loma Prieta, CA	6.9	63
January 17, 1994	Northridge, CA	6.7	60

Source: USGS, http://earthquake.usgs.gov/earthquakes/states/us_deaths.php.

Note: Other sources report different numbers of fatalities associated with the Northridge earthquake.

Earthquake Fatalities

Since 2000, only two deaths directly caused by earthquakes have occurred in the United States, both associated with falling debris in Paso Robles (CA) during the December 22, 2003, San Simeon earthquake of magnitude 6.5. In contrast, earthquakes have been directly or indirectly responsible for more than 685,000 fatalities in other countries since 2000.¹⁰ Approximately 65%

(...continued)

on the difficulties of counting earthquake-related deaths and injuries, see http://earthquake.usgs.gov/regional/world/casualty_totals.php.

¹⁰ U.S. Geological Survey, *Earthquakes with 1,000 or More Deaths Since 1900*, at http://earthquake.usgs.gov/earthquakes/world/world_deaths.php. This estimate does not include fatalities from the February 27, 2010, magnitude 8.8 Chilean earthquake, which has resulted in widespread destruction but few fatalities compared to the Indonesian, (continued...)

of those estimated deaths resulted from the December 2004 Indonesian earthquake (and resulting tsunami) of magnitude 9.1, and the January 2010 magnitude 7.0 earthquake in Haiti.

Estimating Potential Losses from Earthquakes

Estimating the seismic hazard for a region—as in **Figure 2**—is a first step in assessing risk. As a second step, shaking hazards maps are often combined with other data, such as the strength of existing buildings, to estimate possible damage in an area due to an earthquake. A third step in estimating potential losses would be in assigning value to the infrastructure at risk from earthquake damage. The combination of seismic risk, population, and vulnerable infrastructure can help improve the understanding of which urban areas across the United States face risks from earthquake hazards that may not be immediately obvious from the probability maps of shaking hazards alone, and what potential economic costs may be at stake.

The 1994 Northridge earthquake was the nation's most damaging earthquake in the past 100 years, preceded five years earlier by the second-most costly earthquake—Loma Prieta. Comparing losses between different earthquakes, and between earthquakes and other disasters such as hurricanes, can be difficult because of the different ways losses are calculated. Calculations may include a combination of insured losses, uninsured losses, and estimates of lost economic activity.

The United States faces potentially large total losses due to earthquake-caused damage to buildings and infrastructure and lost economic activity. As urban development continues in earthquake-prone regions in the United States, concerns are increasing about the exposure of the built environment, including utilities and transportation systems, to potential earthquake damage.¹¹ One estimate of economic loss from a severe earthquake in the Los Angeles area is over \$500 billion.¹² Another estimate of economic loss from a hypothetical 6.5 magnitude earthquake along the heavily populated central New Jersey-Philadelphia corridor would be even higher—approximately \$900 billion. The seismic hazard in the New Jersey-Philadelphia regions, however, is much lower than in the Los Angeles area, as shown in **Figure 2**.

Another approach to estimating potential losses is to “normalize” the damage estimates from past earthquakes by adjusting for inflation, increases in wealth, and changes in population. For example, adjusting the 1906 San Francisco earthquake and subsequent fire using 2005 dollars results in between \$39 billion and \$328 billion in losses, depending on assumptions and earthquake mitigation measures if that earthquake happened today.¹³

(...continued)

Pakistan, and Haiti earthquakes.

¹¹ FEMA Publication 366, *HAZUS MH Estimated Annualized Earthquake Losses for the United States* (April 2008), at <http://www.fema.gov/library/viewRecord.do?id=3265>. Hereafter referred to as FEMA 366.

¹² A. M. Best Company Inc., *2006 Annual Earthquake Study: \$100 Billion of Insured Loss in 40 Seconds* (Oldwick, NJ: A.M. Best Company, 2006), p. 12. The A. M. Best report includes estimates from catastrophe-modeling companies of predicted damage from hypothetical earthquakes in Los Angeles, the Midwest, the Northeast, and Japan. The report cites an estimate by one such company, Risk Management Solutions (RMS), that a hypothetical 7.4 magnitude event along the Newport-Inglewood Fault near Los Angeles would cause \$549 billion in total property damage. A hypothetical 6.5 magnitude earthquake along a fault between Philadelphia and New York City would produce \$901 billion in total loss, according to an RMS estimate.

¹³ Kevin Vranes and Roger Pielke, Jr., “Normalized Earthquake Damage and Fatalities in the United States: 1900- (continued...) ”

Some studies and techniques combine seismic risk with the value of the building inventory¹⁴ and income losses (e.g., business interruption, wage, and rental income losses) in cities, counties, or regions across the country to provide estimations of economic losses from earthquakes. An April 2008 report from FEMA calculated that the average *annualized* loss from earthquakes nationwide is \$5.3 billion, with California, Oregon, and Washington accounting for nearly \$4.1 billion (77%) of the U.S. total estimated average annualized loss.¹⁵ **Table 3** shows metropolitan areas with estimated average annualized U.S. earthquake losses over \$10 million.

Table 3. U.S. Metropolitan Areas with Estimated Annualized Earthquake Losses of More Than \$10 Million
(in \$ millions)

Rank	Metro area	AEL	Rank	Metro area	AEL
1	Los Angeles-Long Beach-Santa Ana, CA	\$1,312	23	Reno-Sparks, NV	\$29
2	San Francisco-Oakland-Fremont, CA	\$781	24	Charleston-North Charleston, SC	\$22
3	Riverside-San Bernadino-Ontario, CA	\$397	25	Columbia, SC	\$22
4	San Jose-Sunnyvale-Santa Clara, CA	\$277	26	Stockton, CA	\$21
5	Seattle-Tacoma, WA	\$244	27	Atlanta-Sandy Springs-Marietta, GA	\$19
6	San Diego-Carlsbad-San Marcos, CA	\$155	28	Bremerton-Silverdale, WA	\$18
7	Portland-Vancouver-Carlsbad, OR	\$137	29	Ogden-Clearfield, UT	\$18
8	Oxnard-Thousand Oaks-Ventura, CA	\$111	30	Salem, OR	\$17
9	Santa Rosa-Petaluma, CA	\$69	31	Eugene-Springfield, OR	\$17
10	St. Louis, MO-IL	\$59	32	Napa, CA	\$16
11	Salt Lake City, UT	\$52	33	San Luis Obispo-Paso Robles, CA	\$16
12	Sacramento-Arden-Arcade-Roseville, CA	\$52	34	Nashville-Davidson-Murfreesboro, TN	\$15
13	Vallejo-Fairfield, CA	\$40	35	Albuquerque, NM	\$15
14	Memphis, TN	\$38	36	Olympia, WA	\$14
15	Santa Cruz-Watsonville, CA	\$36	37	Modesto, CA	\$13
16	Anchorage, AK	\$35	38	Fresno, CA	\$13
17	Santa Barbara-Santa Maria-Goleta, CA	\$34	39	Evansville, IN-KY	\$12
18	Las Vegas-Paradise, NV	\$33	40	Birmingham-Hoover, AL	\$11
19	Honolulu, HI	\$32	41	El Centro, CA	\$11
20	Bakersfield, CA	\$30	42	Little Rock-North Little Rock, AR	\$11
21	New York-Northern New Jersey-Long Island, NY	\$30	43	Provo-Orem, UT	\$10
22	Salinas, CA	\$29			

Source FEMA Publication 366, *HAZUS MH Estimated Annualized Earthquake Losses for the United States* (April 2008). Annualized earthquake losses (AEL) calculated in 2005 dollars.

(...continued)

2005," *Natural Hazards Review*, vol. 10, no. 3 (August 2009), pp. 84-101.

¹⁴ Building inventory refers to four main inventory groups: (1) general building stock, (2) essential and high potential loss facilities, (3) transportation systems, and (4) utility systems (FEMA 366).

¹⁵ FEMA 366, p. 37.

Annualized earthquake loss (AEL) addresses two components of seismic risk: the probability of ground motion and the consequences of ground motion. It enables comparison between different regions with different seismic hazards and different building construction types and quality. For example, earthquake hazard is higher in the Los Angeles area than in Memphis, but the general building stock in Los Angeles is more resistant to the effects of earthquakes. The AEL annualizes the expected losses by averaging them by year.

A single large earthquake can cause far more damage than the average annual estimate. Annualized estimates, however, help provide comparisons of infrequent, high-impact events like damaging earthquakes with more frequently occurring hazards like floods, hurricanes, or other types of severe weather. The annualized earthquake loss values shown in **Table 3** represent future estimates, and are calculated by multiplying losses from potential future ground motions by their respective frequencies of occurrence, and then summing these values.¹⁶

Table 3 also shows that annualized earthquake losses in the New York-Northern New Jersey-Long Island metropolitan area are \$30 million (ranked 21 out of 43 metropolitan areas with losses greater than \$1 million per year), even though no destructive earthquakes have struck that area for generations.¹⁷ This area has a relatively low seismic hazard, but also has an extensive infrastructure and is densely populated. That combination of seismic risk, extensive infrastructure, and dense population produces a significant risk to people and structures, according to some estimates.¹⁸

A Decrease in Estimated Loss?

In its most recent publication estimating potential earthquake losses, FEMA noted that the \$5.3 billion in annualized earthquake loss nationwide was 21% higher than the \$4.4 billion calculated in FEMA's previous report, published in February 2001.¹⁹ However, the 2001 report calculated losses using 1994 dollars, and when adjusted to reflect 2005 dollars the earlier estimate increased to \$5.6 billion, indicating a small decrease in nationwide annualized earthquake loss potential since the 2001 report was published. According to FEMA, this loss occurred even though the national building inventory increased by 50% over this same period.

What factors led to a decreased estimate in potential loss despite growth in building inventory? According to FEMA, two primary factors were responsible: (1) a slight decrease in estimated earthquake hazard in the western United States (namely California) except for some parts of Washington and Utah, and (2) a change in the distribution of building inventory in California, with an increase in wood frame buildings of 17% and a reduction in the amount of masonry (-6%), steel (-5.8%), and concrete (-3%) buildings in the state.²⁰ Wood frame buildings are less vulnerable to earthquake damage, generally, compared to other construction types. Because California accounts for 66% of the overall nationwide annualized earthquake loss, a 17% increase

¹⁶ FEMA 366, p. 10.

¹⁷ The largest earthquakes in New York, New Jersey, and Massachusetts were, respectively: 1944, Massena, NY, magnitude 5.8, felt from Canada south to Maryland; 1783, New Jersey, magnitude 5.3, felt from New Hampshire to Pennsylvania; and 1755, Cape Ann and Boston, MA, intensity of VIII on the Modified Mercalli Scale, felt from Nova Scotia to Chesapeake Bay (USGS Earthquake Hazards Program).

¹⁸ USGS Circular 1188, Table 3.

¹⁹ FEMA 366, p. 32.

²⁰ *Ibid.*, p. 32 and p. 36.

in wood frame buildings had a proportionally large effect. In fact, FEMA attributed 78% of the loss reduction between 2001 and 2008 to the change in building inventory distribution, and 22% to the decrease in earthquake hazard for California.²¹

The New Madrid Seismic Zone

The New Madrid Seismic Zone in the central United States is vulnerable to large but infrequent earthquakes. A series of large (magnitude greater than 7.0) earthquakes struck the Mississippi Valley over the winter of 1811-1812, centered close to the town of New Madrid, MO. Some of the tremors were felt as far away as Charleston, SC, and Washington, DC. The mechanism for the earthquakes in the New Madrid zone is poorly understood,²² and no earthquakes of comparable magnitude have occurred in the area since these events.

Estimating earthquake damage is not an exact science and depends on many factors. As described above, these are primarily the probability of ground motion occurring in a particular area (see **Figure 2**), and the consequences of that ground motion, which are largely a function of building construction type and quality, and of the level of ground motion and shaking during the actual event. Such factors contribute to the difficulty of making a reasonable damage estimate for a low-frequency, high-impact event in the New Madrid region based on the probability of an earthquake of similar magnitude occurring. This uncertainty has implications for policy decisions to ameliorate risk, such as setting building codes, and for designing and building structures to withstand a level of shaking commensurate with the risk. Presumably, the same seismic hazard should lead to similar building codes in urban areas (e.g., in **Figure 2**, compare the seismic hazard for the New Madrid area with portions of California).

Some researchers have questioned whether erring on the side of caution in the New Madrid Seismic Zone is justified.²³ These researchers challenge whether the benefits of building structures to conform with the earthquake probability estimates merit the costs, in light of the uncertainty in making those probability estimates.²⁴ These analyses may call into question whether the probability of ground motion estimates for the New Madrid Seismic Zone (the bulls-eye-shaped area shown in **Figure 2** that includes parts of Arkansas, Illinois, Tennessee, and Missouri), and other regions of the country that experience infrequent earthquakes, are too high.²⁵ A contributing factor to the uncertainty in estimating the earthquake hazard in the New Madrid Seismic Zone is the small amount of ground motion measured across the major faults, compared to much faster motions measured across major faults in California.²⁶ Typically, seismologists

²¹ Ibid., p. 36.

²² In contrast to California, where earthquakes occur on the active margin of the North American tectonic plate, the New Madrid seismic zone is not on a plate boundary but may be related to old faults in the interior of the plate, marking a zone of tectonic weakness.

²³ Andrew Newman et al., "Slow Deformation and Lower Seismic Hazard in the New Madrid Seismic Zone," *Science*, v. 284 (April 23, 1999), pp. 619-621.

²⁴ Seth Stein, Joseph Tomasello, and Andrew Newman, "Should Memphis Build for California's Earthquakes?" *Eos*, v. 84, no. 19, (May 13, 2003), pp. 177, 184-185.

²⁵ Seth Stein, "Code Red: Earthquake Imminent?" *Earth*, vol. 54, no. 1 (January 2009), pp. 52-59.

²⁶ Some researchers measure, for example, less than 2 millimeters of ground motion per year in the New Madrid Seismic Zone using modern GPS technology. In contrast, motion across the San Andreas Fault in California is about 36 millimeters per year. See Seth Stein, *Disaster Deferred: How New Science is Changing Our View of Earthquake Hazards in the Midwest* (New York: Columbia University Press, 2010), pp. 4-5.

estimate the stress that builds up on a fault by measuring ground motion across the fault: the faster the motion, the more quickly the stress builds up. The buildup of stress may be ultimately released in an earthquake during which the rocks on one side of the fault move relative to the other side. Generally, for fast-moving faults such as the San Andreas Fault, the period of earthquake recurrence is short compared to faults where the ground motion is relatively slow.

Yet despite the uncertainty raised by some researchers because of the apparent lack of much ground motion, the USGS attributes a seismic hazard to areas of the New Madrid Seismic Zone comparable to the most seismically active portions of California (see **Figure 2**), where earthquakes are much more frequent, and the mechanisms for generating earthquakes are better understood. The lack of much ground motion is a confusing factor for scientists trying to understand the New Madrid Seismic Zone, which experienced three major earthquakes 200 years ago but does not seem to exhibit much ground motion today. In part because of the 200th anniversary of the three major earthquakes, FEMA is planning a National Level Exercise (NLE 2011) that will focus on a scenario of a catastrophic earthquake in the New Madrid Seismic Zone and will encompass eight states: Alabama, Arkansas, Kentucky, Illinois, Indiana, Mississippi, Missouri, and Tennessee. The NLE 2011 will be conducted in May 2011.²⁷

Earthquakes in Haiti, Chile, and Japan—Some Comparisons

The magnitude 8.8 earthquake that struck Chile on February 27, 2010, was over 60 times larger than the magnitude 7.0 earthquake that destroyed Port-au-Prince, Haiti, less than two months earlier. Yet the number of deaths and the amount of damage in Haiti far exceeded damage and fatalities in Chile. The Chile earthquake occurred offshore, and was deeper and farther away from major cities than the Haiti earthquake; in addition, the infrastructure in Chile—buildings, highways, bridges—appears to have been built to withstand earthquake shaking far better than similar infrastructure in Haiti. Japan's magnitude 9.0 earthquake on March 11, 2011, was even larger and more destructive than the Chile earthquake, but a large portion of the damage was caused by a powerful tsunami. The three countries faced significant seismic hazards, although the hazards facing Chile and Japan were arguably better known, because Chile experienced a great (magnitude 9.5) earthquake in 1960²⁸ and Japan experienced a very damaging earthquake in Kobe in 1995 and has a long history of seismic activity. By contrast, Haiti had last experienced a large earthquake in 1860 (earthquakes in 1751 and 1770 destroyed Port-au-Prince; the 1860 earthquake struck farther west). In addition to the seismic *hazard*, which is a consequence of geology and plate tectonics, Haiti's vulnerability to earthquake shaking appears to have exceeded Chile's. Japan's dense population and infrastructure, in particular the nuclear power reactors located on the northeast coastline close to the epicenter, increased its vulnerability to the March 11 earthquake and tsunami. However, Haiti was at greater *risk* of fatalities—from the earthquake and resulting damage to buildings—than Chile or Japan, even though Japan's March 11, 2011, earthquake was approximately 100 times larger than the Haiti earthquake.

²⁷ See FEMA, National Level Exercise NLE 2011 Private Sector Participation, at http://www.fema.gov/privatesector/take_action.shtm#2.

²⁸ According to the USGS, the May 22, 1960, magnitude 9.5 earthquake was the largest earthquake in the world. See http://earthquake.usgs.gov/earthquakes/world/events/1960_05_22.php.

January 12, 2010, Magnitude 7.0 Earthquake in Haiti

On Tuesday, January 12, 2010, a magnitude 7.0 earthquake struck Haiti at 4:53 p.m. The epicenter was located approximately 15 miles west-southwest of Port-au-Prince, and the earthquake occurred at a depth of about 8 miles, according to the USGS.²⁹ The relatively shallow earthquake, and its close proximity to the capital city, exposed millions of Haitians to severe to violent ground shaking. The earthquake occurred along the Enriquillo-Plantain Garden fault system, a major east-west trending strike-slip fault system that lies between the Caribbean tectonic plate and the North American tectonic plate; the Caribbean plate actively moves against the North American plate and shear stresses are created at the boundary. At a strike-slip fault, the rocks move past each other horizontally along the fault line (in contrast to a thrust fault, where rocks on one side of the fault move on top of the rocks on the other side). Other examples of strike-slip faults are the San Andreas fault in California and the Red River fault in China.

The January 12, 2010, earthquake caused widespread damage in the Port-au-Prince area, causing approximately 223,000 deaths and 300,000 injuries.³⁰ Also, a series of aftershocks followed the main earthquake. There were 14 aftershocks greater than magnitude 5, and 36 greater than magnitude 4, within the first day following the magnitude 7.0 event. Aftershocks have the potential to cause further damage, especially to structures weakened by the initial large earthquake. The USGS noted that buildings in the Port-au-Prince area will continue to be at risk from strong earthquake shaking, and that the fault responsible for the January 12, 2010, earthquake still stores sufficient strain to be released as a large, damaging earthquake during the lifetime of structures built during the reconstruction effort.³¹

The USGS based its probability estimates on techniques developed to assess earthquake hazards in the United States. Using these techniques, the USGS estimated that the probability of a magnitude 7 or greater earthquake occurring within the next 50 years along the Enriquillo fault near Port-au-Prince is between 5% and 15%. The range of probabilities reflects the current understanding of the seismicity and tectonics of the Haiti region. By comparison, the USGS has estimated that the probability of a magnitude 7 or greater earthquake occurring within the next 50 years along the Hayward-Rodgers Creek fault east of San Francisco is about 15%.³²

February 27, 2010, Magnitude 8.8 Earthquake in Chile

A magnitude 8.8 earthquake struck Chile on February 27, 2010, along a subduction zone plate boundary fault 65 miles north-northeast of the city of Concepcion and offshore of the Chilean coast.³³ The earthquake occurred at a depth of approximately 22 miles below the seafloor, much deeper than the earthquake that struck Haiti on January 12, 2010. The city of Concepcion experienced intensity IX shaking on the Modified Mercalli Intensity Index, corresponding to considerable damage to specially designed structures, and corresponding to great damage to “substantial” buildings. The capital city of Santiago, located 200 miles northeast of the epicenter,

²⁹ USGS Earthquake Hazards Program, at <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010rja6/>.

³⁰ See <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010rja6/#summary>.

³¹ USGS statement, “USGS Updates Assessment of Earthquake Hazard and Safety in Haiti and the Caribbean,” February 23, 2010, at http://www.usgs.gov/newsroom/article.asp?ID=2413&from=rss_home.

³² *Ibid.* However, the USGS also notes that the probability of a magnitude 6.7 or greater earthquake occurring on the Hayward-Rodgers fault over the next 30 years is 31%.

³³ See <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010tfan/#details>.

experienced intensity VIII shaking corresponding to considerable damage in ordinary substantial buildings.³⁴ The earthquake caused an estimated \$30 billion in total economic damage.³⁵ Over 500 deaths were reported, many from the tsunami generated by the subsea earthquake, and approximately 1.8 million people were affected.

Because the earthquake occurred offshore, it generated a tsunami, which struck parts of the Chilean coastline and offshore islands, causing damage and fatalities. Tsunami warnings were issued by the National Weather Service Pacific Tsunami Warning Center for Hawaii, Japan, and other regions bordering the Pacific Ocean that may have been vulnerable to a damaging tsunami wave, although most regions far from the epicenter did not experience any serious damage. A tsunami caused significant damage to the city of Hilo, Hawaii, following the May 1960 magnitude 9.5 earthquake that also occurred along the subduction zone fault about 143 miles south of the February 27, 2010, earthquake.³⁶ Why the 1960 earthquake generated a tsunami that caused damage and fatalities in Hawaii, Japan, and the Philippines, while the 2010 earthquake did not, is not yet well understood and is being actively studied.

The magnitude 8.8 earthquake occurred along the boundary between the Nazca tectonic plate and the South American tectonic plate, which converge at a rate of about 3 inches per year. The Nazca plate is subducting under the South American plate, which rides over the top of the Nazca plate. In geologic terms, this is known as a thrust fault or megathrust, in contrast to a strike-slip fault, where the rocks on either side of the fault slide past each other. The San Andreas fault and the Enriquillo fault that caused the January 2010 Haiti earthquake are strike-slip faults. The Sumatran-Andaman megathrust fault, which triggered the December 2004 Indonesian earthquake and tsunami, is a subduction zone fault or megathrust geologically similar to the Nazca-South American tectonic plate subduction zone.

March 11, 2011, Magnitude 9.0 Earthquake in Japan

A 9.0 magnitude massive earthquake struck off Japan's northeast coast near Honshu on Friday, March 11, 2011 (12:46 a.m. eastern time in the United States). The earthquake triggered a tsunami that caused widespread devastation to parts of the coastal regions in Japan closest to the earthquake epicenter. The epicenter was located about 80 miles east of Sendai, and about 230 miles northeast of Tokyo, and it occurred at a depth of approximately 20 miles beneath the seafloor.³⁷

The earthquake resulted from thrust faulting along the subduction zone plate boundary between the Pacific and North America plates, and this is similar tectonically to the motion described for the 2010 Chile earthquake. Where the earthquake occurred, the Pacific plate is moving westward and sliding underneath the North America plate at just over 3 inches per year. (See **Figure 4**.) This is similar to the convergence rate of the Nazca plate and the South American plate on the west side of Chile, where the February 27, 2010, earthquake occurred. The convergence zone between the Pacific plate and North America plate creates an undersea feature known as the Japan Trench. According to the USGS, tectonic plate motion in the Japan Trench subduction zone has

³⁴ See <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010tfan/#summary>.

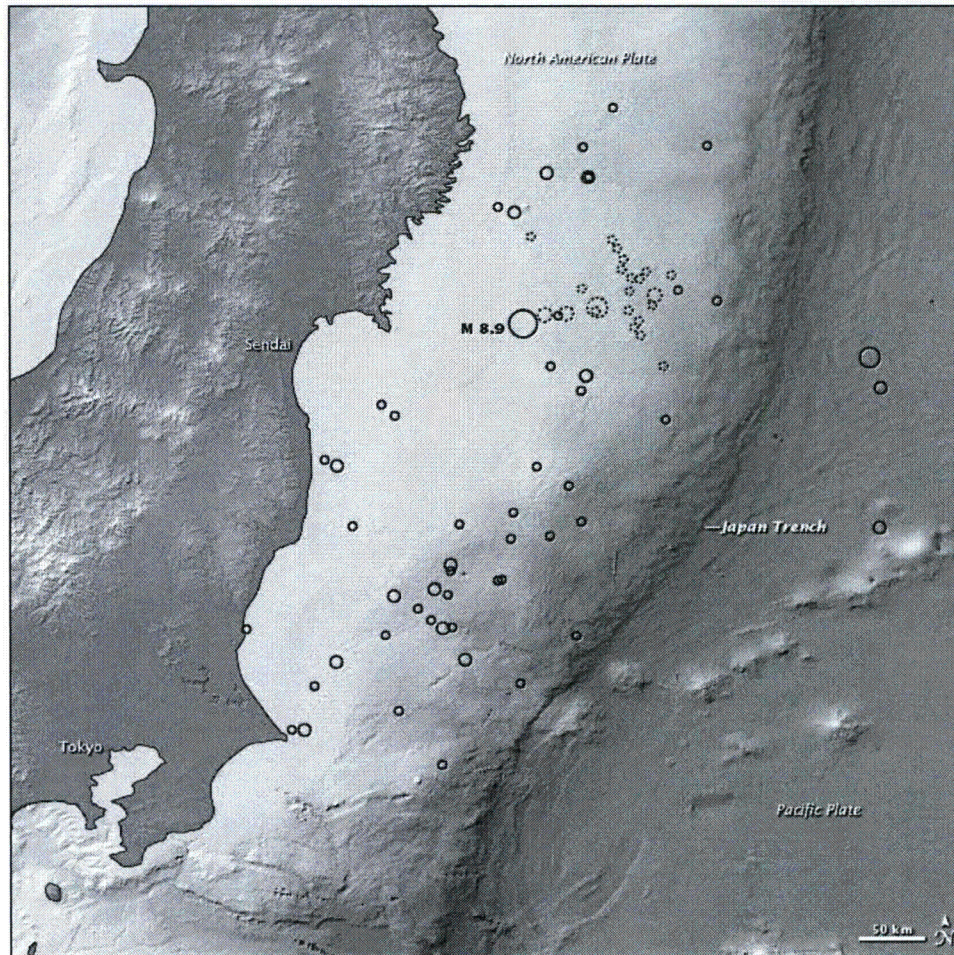
³⁵ Ibid.

³⁶ *The Orphan Tsunami of 1700—Japanese Clues to a Parent Earthquake in North America*, USGS, Professional Paper 1707, 2005, <http://pubs.usgs.gov/pp/pp1707/>.

³⁷ USGS, Earthquake Hazards Program, <http://earthquake.usgs.gov/earthquakes/eqinthenews/2011/usc0001xgp/>.

triggered nine magnitude 7 or greater earthquakes since 1973.³⁸ Also, records indicate that large offshore earthquakes occurred in the same subduction zone in 1611, 1896, and 1933, each producing tsunamis that caused great destruction and fatalities.³⁹ According to records, the 1896 earthquake created tsunami waves of over 100 feet high and a reported death toll of 27,000.⁴⁰

Figure 4. Image of the Japan Trench and Location of the March 11, 2011, Earthquake
(the Pacific plate is moving west and underneath the North America plate)



Source: NASA, Earth Observatory, March 11, 2011, <http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=49621>.

Notes: Large circle depicts epicenter of the earthquake (upgraded to magnitude 9.0); solid circles indicate aftershocks, dotted circles indicate foreshocks (smaller earthquakes that occurred prior to the major earthquake).

³⁸ USGS Earthquake Hazards Program, <http://earthquake.usgs.gov/earthquakes/eqinthenews/2011/usc0001xgp/#summary>.

³⁹ Ibid.

⁴⁰ For more information on the March 11, 2011, Japan tsunami, and the U.S. tsunami monitoring network, see CRS Report R41686, *U.S. Tsunami Programs: A Brief Overview*, by Peter Folger.

Is There a Similar Risk to the United States?

Subduction zone megathrust faults generate the largest earthquakes in the world. The Cascadia Subduction Zone megathrust that stretches from mid-Vancouver Island in southern British Columbia southward to Cape Mendocino in northern California has the potential to generate a very large earthquake, similar in magnitude to the February 2010 Chilean earthquake and the March 11, 2011, Japan earthquake. The fault's proximity to the northwestern U.S. coastline—approximately 50-100 miles offshore—also poses a significant tsunami hazard; destructive waves from a large earthquake along the fault could reach the coast of Oregon and Washington in less than an hour, possibly in tens of minutes. The Cascadia Subduction Zone fault forms the boundary between the subducting Juan de Fuca tectonic plate and the overriding North America plate, very similar to the relationship between the Nazca plate and the South American plate off the Chilean coast, and the Pacific plate and North America plate east of Japan. If the Cascadia Subduction Zone megathrust were to “unzip” or rupture along a large section of its entire length, models indicate that it would likely generate a megathrust earthquake near magnitude 9 or more, similar to the 1964 Alaskan earthquake, the 1960 and 2010 Chilean earthquakes, the 2004 Indonesian earthquake, and the 2011 Japan earthquake. Scientists have documented that the last time this occurred along the Cascadia Subduction Zone fault was in 1700. The 1700 earthquake spawned a tsunami that traveled across the Pacific Ocean and struck Japan. Because of the similarities in the subduction zone megathrust faults, scientists hope to learn a great deal about the seismic hazard in the Pacific Northwest by studying the unique strong ground motion recordings from the 2010 Chilean magnitude 8.8 earthquake and the 2011 Japan earthquake.

Monitoring

Congress authorized the USGS to monitor seismic activity in the United States in the 1990 law modifying NEHRP (P.L. 101-614). The USGS operates a nationwide network of seismographic stations called the Advanced National Seismic System (ANSS), which includes the National Strong-Motion Project (NSMP). Globally, the USGS and the Incorporated Research Institutions for Seismology (IRIS) operate 140 seismic stations of the Global Seismic Network (GSN) in more than 80 countries.⁴¹ The GSN provides worldwide coverage of earthquakes, including reporting and research.⁴²

Advanced National Seismic System (ANSS)

According to the USGS, “the mission of ANSS is to provide accurate and timely data and information products for seismic events, including their effects on buildings and structures, employing modern monitoring methods and technologies.”⁴³ If fully implemented, ANSS would encompass more than 7,000 earthquake sensor systems covering portions of the nation that are vulnerable to earthquake hazards. As envisioned, the system would consist of dense urban networks, regional networks, and backbone stations.

⁴¹ IRIS is a university research consortium, primarily funded by NSF, that collects and distributes seismographic data.

⁴² The GSN also monitors nuclear explosions.

⁴³ USGS Earthquake Hazards Program, <http://earthquake.usgs.gov/research/monitoring/anss/>.

ANSS Funding

Congress first authorized the ANSS program in P.L. 106-503 at a level of \$38 million for FY2002 and \$44 million for FY2003. The 2004 reauthorization of NEHRP (P.L. 108-360) authorized \$30 million for ANSS in FY2005 and then \$36 million per year through FY2009. From FY2000 through FY2010, the USGS has spent a total of \$68.2 million on ANSS-directed funding,⁴⁴ although expenditures have never reached authorized levels since Congress first authorized appropriations for ANSS. Of the \$8.8 million for ANSS-directed funding in FY2009, about \$1.5 million was devoted to the development, modernization, and expansion of the system; the remainder of FY2009 funding was used to operate the existing system.⁴⁵ By the end of 2009, the USGS and its partners had installed a cumulative total of 886 ANSS earthquake monitoring stations.⁴⁶

The American Recovery and Reinvestment Act (ARRA, P.L. 111-5) provided an additional \$19 million for ANSS.⁴⁷ The ARRA funding for ANSS was provided for modernization of the current system, and is approximately 70% expended. The remainder of the ARRA funding for ANSS is expected to be expended by the end of FY2011.⁴⁸

Dense Urban Networks

In the original conception for ANSS, approximately 6,000 of the planned stations would have been installed in 26 high-risk urban areas to monitor strong ground shaking and how buildings and other structures respond. Currently, five high-risk urban areas have instruments deployed in sufficient density to generate the data to produce near real-time maps,⁴⁹ called ShakeMaps, which can be used in emergency response during and after an earthquake.⁵⁰ (See “ShakeMap,” below.)

Backbone Stations

Approximately 100 instruments comprise the existing “backbone” of ANSS, with a roughly uniform distribution across the United States, including Alaska and Hawaii. These instruments provide a broad and uniform minimum threshold of coverage across the country. The backbone network consists of USGS-deployed instruments and other instruments that serve both ANSS and the EarthScope project (described below, under “National Science Foundation”).

⁴⁴ USGS FY2011 Budget Justification, p. J-9, at http://www.usgs.gov/budget/2011/greenbook/FY2011_USGS_Greenbook.pdf.

⁴⁵ Email from William Leith, Advanced National Seismic System Coordinator, USGS, December 22, 2009.

⁴⁶ USGS FY2011 Budget Justification, p. J-10.

⁴⁷ USGS FY2011 Budget Justification, p. J-10.

⁴⁸ E-mail from William Leith, USGS, January 11, 2011.

⁴⁹ The five urban areas are Los Angeles, San Francisco, Seattle, Salt Lake City, and Anchorage. E-mail from William Leith, USGS, February 7, 2011.

⁵⁰ The number of stations necessary to generate a data-based ShakeMap depends on the urban area and geology, but roughly correspond to about half the number of planned stations per urban area, at a spacing of about 20 kilometers between stations. Personal communication, William Leith, USGS, January 11, 2010.

National Strong-Motion Project (NSMP)

Under ANSS, the USGS operates the NSMP to record seismic data from damaging earthquakes in the United States on the ground and in buildings and other structures in densely urbanized areas. The program currently has approximately 1,280 strong-motion⁵¹ instruments across the United States and in the Caribbean. The NSMP has three components: data acquisition, data management, and research. The near real-time measurements collected by the NSMP are used by other government agencies for emergency response and real-time warnings. If fully implemented, the ANSS program would deploy about 3,000 strong-motion instruments. Many of the current NSMP instruments are older designs and are being upgraded with modern seismometers.

Regional Networks

If ANSS were fully implemented under its original conception, approximately 1,000 new instruments would replace aging and obsolete stations in the networks that now monitor the nation's most seismically active regions. The current regional networks contain a mix of modern, digital, broadband, and high-resolution instruments that can provide real-time data; they are supplemented by older instruments that may require manual downloading of data. Universities in the region typically operate the regional networks and will likely continue to do so as ANSS is implemented.

Global Seismic Network (GSN)

The GSN is a system of broadband digital seismographs arrayed around the globe and designed to collect high-quality data that are readily accessible to users worldwide, typically via computer. Currently, 140 stations have been installed in 80 countries and the system is nearly complete, although in some regions the spacing and location of stations has not fully met the original goal of uniform spacing of approximately 2,000 kilometers. The system is currently providing data to the United States and other countries and institutions for earthquake reporting and research, as well as for monitoring nuclear explosions to assess compliance with the Comprehensive Test Ban Treaty.

The Incorporated Research Institutions for Seismology (IRIS) coordinates the GSN and manages and makes available the large amounts of data that are generated from the network. The actual network of seismographs is organized into two main components, each managed separately. The USGS operates two-thirds of the stations from its Albuquerque Seismological Laboratory, and the University of California-San Diego manages the other third via its Project IDA (International Deployment of Accelerometers). Other universities and affiliated agencies and institutions operate a small number of additional stations. IRIS, with funding from the NSF, supports all of the stations not funded through the USGS appropriations. Funding for the GSN is provided via annual appropriations from the USGS and the National Science Foundation. In addition, the USGS committed \$4.7 million from ARRA funding to the GSN, and NSF committed a similar portion of its ARRA funding to replace obsolete equipment on GSN stations worldwide.⁵²

⁵¹ Strong motion seismometers, or accelerometers, are special sensors that measure the acceleration of the ground during large (>6.0 magnitude) earthquakes.

⁵² USGS FY2011 Budget Justification, p. J-32. Annual appropriations for GSN totaled approximately \$9 million for FY2009 and reflect the combined appropriations for USGS and NSF. The USGS portion of annual appropriations in (continued...)

Detection, Notification, and Warning

Unlike other natural hazards, such as hurricanes, where predicting the location and timing of landfall is becoming increasingly accurate, the scientific understanding of earthquakes does not yet allow for precise earthquake prediction. Instead, notification and warning typically involves communicating the location and magnitude of an earthquake as soon as possible after the event to emergency response providers and others who need the information.

Some probabilistic earthquake forecasts are now available that give, for example, a 24-hour probability of earthquake aftershocks for a particular region, such as California. These forecasts are not predictions, and are currently intended to increase public awareness of the seismic hazard, improve emergency response, and increase scientific understanding of the short-term hazard.⁵³ In the California example, a time-dependent map is created and updated every hour by a system that considers all earthquakes, large and small, detected by the California Integrated Seismic Network,⁵⁴ and calculates a probability that each earthquake will be followed by an aftershock⁵⁵ that can cause strong shaking. The probabilities are calculated from known behavior of aftershocks and the possible shaking pattern based on historical data.

When a destructive earthquake occurs in the United States or in other countries, the first reports of its location, or epicenter,⁵⁶ and magnitude originate either from the National Earthquake Information Center (NEIC), or from one of the regional seismic networks that are part of ANSS. Other organizations, such as universities, consortia, and individual seismologists may also contribute information about the earthquake after the event. Products such as ShakeMap (described below) are assembled as rapidly as possible to assist in emergency response and damage estimation following a destructive earthquake.

National Earthquake Information Center (NEIC)

The NEIC, part of the USGS, is located in Golden, CO. Originally established as part of the National Ocean Survey (U.S. Department of Commerce) in 1966, the NEIC was made part of the USGS in 1973. With data gathered from the networks described above and from other sources, the NEIC determines the location and size of all destructive earthquakes that occur worldwide and disseminates the information to the appropriate national or international agencies, government public information channels, news media, scientists and scientific groups, and the general public.

(...continued)

FY2010 was \$5.8 million.

⁵³ USGS Open-File Report 2004-1390, and California 24-hour Aftershock Forecast Map, at <http://pasadena.wr.usgs.gov/step/>.

⁵⁴ The California Integrated Seismic Network is the California region of ANSS; see <http://www.cisn.org/>.

⁵⁵ Earthquakes typically occur in clusters, in which the earthquake with the largest magnitude is called the main shock, events before the main shock are called foreshocks, and those after are called aftershocks. See also <http://pasadena.wr.usgs.gov/step/aftershocks.html>.

⁵⁶ The *epicenter* of an earthquake is the point on the earth's surface directly above the hypocenter. The *hypocenter* is the location beneath the earth's surface where the fault rupture begins.

With the advent of the USGS Earthquake Notification Service (ENS), notifications of earthquakes detected by the ANSS/NEIC are provided free to interested parties. Users of the service can specify the regions of interest, establish notification thresholds of earthquake magnitude, designate whether they wish to receive notification of aftershocks, and even set different magnitude thresholds for daytime or nighttime to trigger a notification.

The NEIC has long-standing agreements with key emergency response groups, federal, state, and local authorities, and other key organizations in earthquake-prone regions who receive automated alerts—typically location and magnitude of an earthquake—within a few minutes of an event in the United States. The NEIC sends these preliminary alerts by email and pager immediately after an earthquake's magnitude and epicenter are automatically determined by computer.⁵⁷ This initial determination is then checked by around-the-clock staff who confirm and update the magnitude and location data.⁵⁸ After the confirmation, a second set of notifications and confirmations are triggered to key recipients by email, pager, fax, and telephone.

For earthquakes outside the United States, the NEIC notifies the State Department Operations Center, and often sends alerts directly to staff at American embassies and consulates in the affected countries, to the International Red Cross, the U.N. Department of Humanitarian Affairs, and other recipients who have made arrangements to receive alerts.

ShakeMap

Traditionally, the information commonly available following a destructive earthquake has been epicenter and magnitude, as in the data provided by the NEIC described above. Those two parameters by themselves, however, do not always indicate the intensity of shaking and extent of damage following a major earthquake. Recently, the USGS developed a product called ShakeMap that provides a nearly real-time map of ground motion and shaking intensity following an earthquake in areas of the United States where the ShakeMap system is in place. **Figure 5** shows an example of a ShakeMap.

The maps produced portray the extent of damaging shaking and can be used by emergency response and for estimating loss following a major earthquake. Currently, ShakeMaps are available for northern California, southern California, the Pacific Northwest, Nevada, Utah, Hawaii, and Alaska.⁵⁹

With improvements to the regional seismographic networks in the areas where ShakeMap is available, new real-time telemetry from the region, and advances in digital communication and computation, ShakeMaps are now triggered automatically and made available within minutes of the event via the web. In addition, better maps are now available because of recent improvements in understanding the relationship between the ground motions recorded during the earthquake and the intensity of resulting damage. If databases containing inventories of buildings and lifelines are available, they can be combined with shaking intensity data to produce maps of estimated damage. The ShakeMaps have limitations, especially during the first few minutes following an

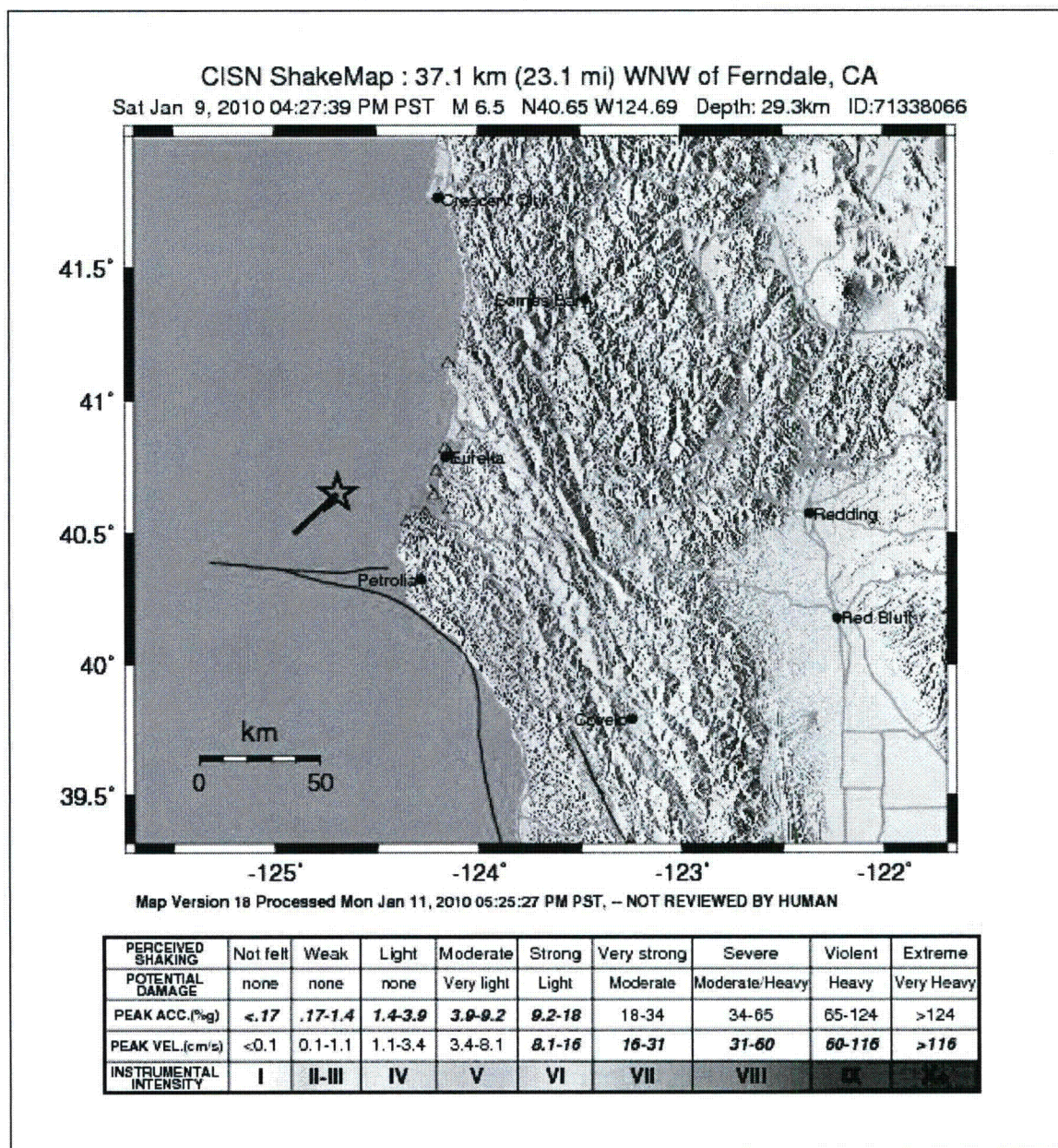
⁵⁷ Stuart Simkin, NEIC, Golden, CO, telephone conversation, Nov. 4, 2006.

⁵⁸ In early 2006, the NEIC implemented an around-the-clock operation center and seismic event processing center in response to the Indonesian earthquake and resulting tsunami of December 2004. Funding to implement 24/7 operations was provided by P.L. 109-13.

⁵⁹ ShakeMaps for some areas outside the United States are also available. See <http://earthquake.usgs.gov/eqcenter/shakemap/>.

earthquake before additional data arrive from distributed sources. Because they are generated automatically, the initial maps are preliminary, and may not have been reviewed by experts when first made available. They are considered a work in progress, but are deemed to be very promising, especially as more modern seismic instruments are added to the regional networks under ANSS and computational and telecommunication abilities improve.

Figure 5. Example of a ShakeMap



Source: USGS, <http://earthquake.usgs.gov/eqcenter/shakemap/nc/shake/71338066/>.

Note: Earthquake occurred 23.1 miles west-northwest of Ferndale, CA, at 4:27 p.m. on January 9, 2010, with a magnitude of 6.5. The star indicates the epicenter of the earthquake. Viewed on January 12, 2010.

Prompt Assessment of Global Earthquakes for Response (PAGER)

Another USGS product that is designed to provide nearly real-time earthquake information to emergency responders, government agencies, and the media is the Prompt Assessment of Global Earthquakes for Response, or PAGER, system.⁶⁰ This automated system rapidly assesses the number of people, cities, and regions exposed to severe shaking by an earthquake, and generally makes results available within 30 minutes. Following the determination of earthquake location and magnitude, the PAGER system calculates the degree of ground shaking using the methodology developed for ShakeMap, estimates the number of people exposed to various levels of shaking, and produces a description of the vulnerability of the exposed population and infrastructure. The vulnerability includes potential for earthquake-triggered landslides, which could be devastating, as was the case for the huge May 12, 2008, earthquake in Sichuan, China. The automated and rapid reports produced by the PAGER system provide an advantage compared to the traditional accounts from eye-witnesses on the ground or media reports, because communications networks may have been disabled from the earthquake. Emergency responders, relief organizations, and government agencies could make plans based on PAGER system reports even before getting “ground-truth” information from eye-witnesses and the media.⁶¹ **Figure 6** shows an example of PAGER output for the January 12, 2010, magnitude 7.0 earthquake in Haiti.

Pre-disaster Planning: HAZUS-MH

FEMA developed a methodology and software program called the Hazards U.S. Multi-Hazard (HAZUS-MH).⁶² The program allows a user to estimate losses from damaging earthquakes, hurricane winds, and floods before a disaster occurs. The pre-disaster estimates could provide a basis for developing mitigation plans and policies, preparing for emergencies, and planning response and recovery. HAZUS-MH combines existing scientific knowledge about earthquakes (for example, ShakeMaps, described above), engineering information that includes data on how structures respond to shaking, and geographic information system (GIS) software to produce maps and display hazards data including economic loss estimates. The loss estimates produced by HAZUS-MH include

- physical damage to residential and commercial buildings, schools, critical facilities, and infrastructure;
- economic loss, including lost jobs, business interruptions, repair and reconstruction costs; and
- social impacts, including estimates of shelter requirements, displaced households, and number of people exposed to the disaster.

In addition to furnishing information as part of earthquake mitigation efforts, HAZUS-MH can also be used to support real-time emergency response activities by state and federal agencies after a disaster. Twenty-seven HAZUS-MH user groups—cooperative ventures among private, public, and academic organizations that use the HAZUS-MH software—have formed across the United States to help foster better-informed risk management for earthquakes and other natural hazards.⁶³

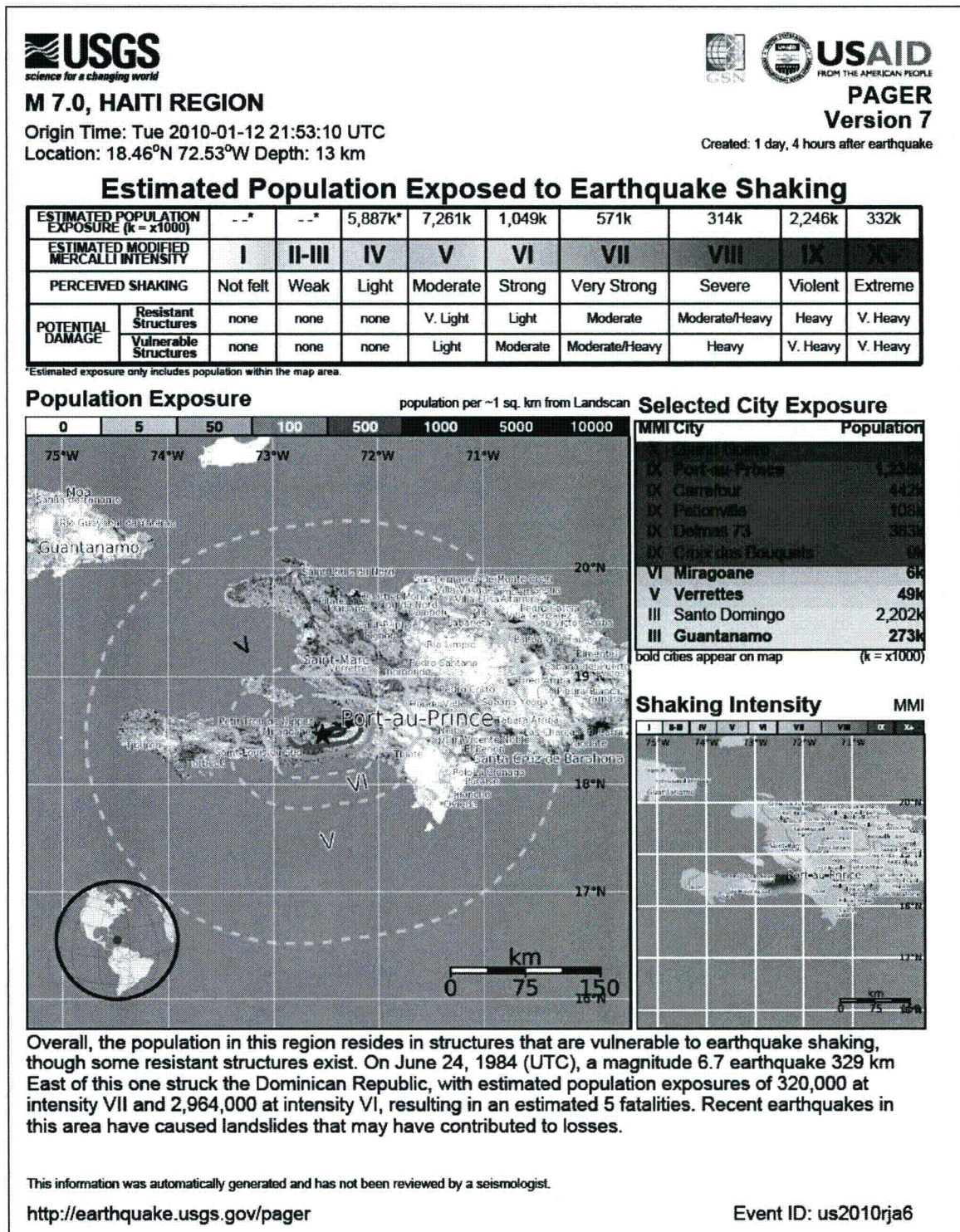
⁶⁰ See the USGS Earthquakes Hazards Program for more information, at <http://earthquake.usgs.gov/earthquakes/pager/>.

⁶¹ See also USGS Fact Sheet 2007-3101 at <http://pubs.usgs.gov/fs/2007/3101/>.

⁶² See http://www.fema.gov/plan/prevent/hazus/hz_overview.shtm.

⁶³ See <http://www.hazus.org/>.

Figure 6. Example of PAGER Output for the January 12, 2010, Magnitude 7.0 Haiti Earthquake



Source: USGS, <http://earthquake.usgs.gov/earthquakes/pager/events/us/2010rja6/onepager.pdf>.

Note: This is version 7 of the PAGER output, accessed on January 14, 2010.

Research — Understanding Earthquakes

U.S. Geological Survey

Under NEHRP, the USGS has responsibility for conducting targeted research into improving the basic scientific understanding of earthquake processes. The current earthquake research program at the USGS covers six broad categories:⁶⁴

- *Borehole geophysics and rock mechanics*: studies to understand heat flow, stress, fluid pressure, and the mechanical behavior of fault-zone materials at seismogenic⁶⁵ depths to yield improved models of the earthquake cycle;
- *Crustal deformation*: studies of the distortion or deformation of the earth's surface near active faults as a result of the motion of tectonic plates;
- *Earthquake geology and paleoseismology*: studies of the history, effects, and mechanics of earthquakes;
- *Earthquake hazards*: studies of where, why, when, and how earthquakes occur;
- *Regional and whole-earth structure*: studies using seismic waves from earthquakes and man-made sources to determine the structure of the planet ranging from the local scale, to the whole crust, mantle, and even the earth's core; and
- *Strong-motion seismology, site response, and ground motion*: studies of large-amplitude ground motions and the response of engineered structures to those motions using accelerometers.

National Science Foundation

NSF supports fundamental research into understanding the earth's dynamic crust. Through its Earth Sciences Division (part of the Geosciences Directorate), NSF distributes research grants and coordinates programs investigating the crustal processes that lead to earthquakes around the globe.⁶⁶

EarthScope

In 2003, NSF initiated a Major Research Equipment and Facilities Construction (MREFC) project called EarthScope that deploys instruments across the United States to study the structure and evolution of the North American Continent, and to investigate the physical processes that cause earthquakes and volcanic eruptions.⁶⁷ EarthScope is a multi-year project begun in 2003 that is funded by NSF and conducted in partnership with the USGS and NASA.

⁶⁴ See <http://earthquake.usgs.gov/research/>.

⁶⁵ Seismogenic means capable of generating earthquakes.

⁶⁶ See <http://www.nsf.gov/div/index.jsp?div=EAR>.

⁶⁷ See <http://www.earthscope.org/>.

EarthScope instruments are intended to form a framework for broad, integrated studies of the four-dimensional (three spatial dimensions, plus time) structure of North America. The project is divided into three main programs:

- *The San Andreas Fault Observatory at Depth (SAFOD)*, a deep borehole observatory drilled through the San Andreas fault zone close to the hypocenter of the 1966 Parkfield, CA, magnitude 6 earthquake;
- *The Plate Boundary Observatory (PBO)*, a system of GPS arrays and strainmeters⁶⁸ that measure the active boundary zone between the Pacific and North American tectonic plates in the western United States; and
- *USArray*, 400 transportable seismometers that will be deployed systematically across the United States on a uniform grid to provide a complete image of North America from continuous seismic measurements.

SAFOD and PBO are in place and providing data to the seismological community. USArray is progressing across North America and is also furnishing real-time data to seismologists. The portable array currently covers the midsection of the United States and is moving east. The installation plan calls for completing the portable array by 2013.⁶⁹

Network for Earthquake Engineering Simulation

Through its Engineering Directorate, NSF funds the George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES), a project intended to operate until 2014, aimed at understanding the effects of earthquakes on structures and materials.⁷⁰ To achieve the program's goal, the NEES facilities conduct experiments and computer simulations of how buildings, bridges, utilities, coastal regions, and materials behave during an earthquake. In the first six years of operations since 2004, 160 multiyear projects have been completed or are in progress under NEES.⁷¹

Conclusion

At present earthquakes can be neither accurately predicted nor prevented, and in its 1990 reauthorization NEHRP shifted its program emphasis from prediction to hazard reduction. The program's focus has been on understanding the earthquake hazard and its risk to populations and infrastructure in the United States, developing effective measures to reduce earthquake hazards, and promoting the adoption of earthquake hazards reduction measures in vulnerable areas.

⁶⁸ A strainmeter is a tool used by seismologists to measure the motion of one point relative to another.

⁶⁹ See <http://www.usarray.org/maps>.

⁷⁰ Management for NEES has been headquartered at Purdue University's Discovery Park since October 1, 2009. Institutions participating in NEES include Cornell University; Lehigh University; Oregon State University; Rensselaer Polytechnic Institute; University of Buffalo-State University of New York; University of California-Berkeley; University of California-Davis; University of California-Los Angeles; University of California-San Diego; University of California-Santa Barbara; University of Colorado-Boulder; University of Illinois at Urbana-Champaign; University of Minnesota; University of Nevada-Reno; and University of Texas at Austin. See <http://www.nees.org/>.

⁷¹ See <http://nees.org/about>.

Legislation to modify NEHRP in the 108th Congress (P.L. 108-360) reflected congressional concerns about how well the four NEHRP agencies coordinated their efforts to maximize the program's potential. If legislation is introduced in the 112th Congress to modify the program and reauthorize appropriations, Congress may consider evaluating how effectively the agencies have responded to Congress's direction in P.L. 108-360 to improve coordination since 2004.

In the 111th Congress, legislation introduced to make changes to NEHRP, H.R. 3820, reemphasized that approach but cast it in terms of hazard *mitigation* by stating that a major goal for the program should be "to reduce the loss of life and damage to communities and infrastructure through increasing the adoption of hazard mitigation measures." The bill further emphasized the social aspects of mitigating earthquake hazards, calling for research to better understand institutional, social, behavioral, and economic factors that influence how risk mitigation is implemented, in addition to the traditional research into understanding how, why, and where earthquakes occur.

The emphasis on mitigation proposed by H.R. 3820 in the 111th Congress reflects at least two fundamental challenges to increasing the nation's resiliency to earthquakes, and to most other major natural hazards such as hurricanes and major floods. The first is to assess whether social, behavioral, and economic factors can be understood in sufficient degree to devise strategies that influence behavior to mitigate risk posed by the hazard. Put simply, what motivates people and communities to adopt risk mitigation measures that address the potential hazard? A second challenge, which is more squarely an issue for Congress, is how to measure the effectiveness of NEHRP more quantitatively. It is inherently difficult to capture precisely, in terms of dollars saved or fatalities prevented, the effectiveness of mitigation measures taken before an earthquake occurs. A major earthquake in a populated urban area within the United States would cause damage, and a question becomes how much damage would be prevented by mitigation strategies underpinned by the NEHRP program.

A precise relationship between earthquake mitigation measures, NEHRP and other federal earthquake-related activities, and reduced losses from an actual earthquake may never be possible. However, as more accurate seismic hazard maps evolve, as understanding of the relationship between ground motion and building safety improves, and as new tools for issuing warnings and alerts such as ShakeMap and PAGER are devised, trends denoting the effectiveness of mitigation strategies and NEHRP activities may emerge more clearly. Without an ability to precisely predict earthquakes, Congress is likely to face an ongoing challenge in determining the most effective federal approach to increasing the nation's resilience to low-probability but high-impact natural hazards, such as major earthquakes.

Author Contact Information

Peter Folger
Specialist in Energy and Natural Resources Policy
pfolger@crs.loc.gov, 7-1517



Japan 2011 Disaster: CRS Experts

Ben Dolven

Section Research Manager

March 15, 2011

Congressional Research Service

7-5700

www.crs.gov

R41692

The following table provides access to names and contact information for CRS experts on policy concerns relating to the nuclear and humanitarian disaster unfolding in Japan. Policy areas identified include

- Nuclear power, nuclear safety, and radioactive health concerns;
- Geology, earthquakes, and tsunamis;
- U.S. relations with Japan;
- U.S. government response to the disaster; and
- Economic impacts of the crisis.

Legislative Issues	Name/Title	Phone	E-mail
Japan/U.S.-Japan Relations			
	Emma Chanlett-Avery Specialist in Asian Affairs	7-7748	echanlettavery@crs.loc.gov
	Mark Manyin Specialist in Asian Affairs	7-7653	mmanyin@crs.loc.gov
Nuclear Industry/Nuclear Safety			
	Mark Holt Specialist in Energy Policy	7-1704	mholt@crs.loc.gov
	Mary Beth Nikitin Specialist in Nonproliferation	7-7745	mnikitin@crs.loc.gov
	Anthony Andrews Specialist in Energy and Defense	7-6843	aandrews@crs.loc.gov
	Richard Campbell Specialist in Energy Policy	7-7905	rcampbell@crs.loc.gov
	Carl Behrens Specialist in Energy Policy	7-8303	cbehrens@crs.loc.gov
Health Impact of Radiation			
	C. Stephen Redhead Specialist in Health Policy	7-2261	credhead@crs.loc.gov
	Jonathan Medalia Specialist in Nuclear Weapons Policy	7-7632	jmedalia@crs.loc.gov
Geology: Earthquakes/Tsunami			
	Peter Folger Specialist in Energy and Natural Resources Policy	7-1517	pfolger@crs.loc.gov
Humanitarian Response			
	Rhoda Margesson Specialist in International Humanitarian Policy	7-0425	rmargesson@crs.loc.gov
	Francis McCarthy Analyst in Emergency Management Policy	7-9533	fmccarthy@crs.loc.gov
	Emma Chanlett-Avery Specialist in Asian Affairs	7-7748	echanlettavery@crs.loc.gov

Legislative Issues	Name/Title	Phone	E-mail
	Mark Manyin Specialist in Asian Affairs	7-7653	mmanyin@crs.loc.gov
Economic Impacts			
	William Cooper Specialist in International Trade and Finance	7-7749	wcooper@crs.loc.gov
	Dick Nanto Specialist in Industry and Trade	7-7754	dnanto@crs.loc.gov
	Mark Manyin Specialist in Asian Affairs	7-7653	mmanyin@crs.loc.gov
U.S. Military Assets in Japan/Military Response			
	Emma Chanlett-Avery Specialist in Asian Affairs	7-7748	echanlettavery@crs.loc.gov
	Andrew Feickert Specialist in Military Ground Forces	7-7673	afeickert@crs.loc.gov
	Ronald O'Rourke Specialist in Naval Affairs	7-7610	rorourke@crs.loc.gov
	Mark Manyin Specialist in Asian Affairs	7-7653	mmanyin@crs.loc.gov

Author Contact Information

Ben Dolven
Section Research Manager
bdolven@crs.loc.gov, 7-7626



Fukushima Nuclear Crisis

Richard J. Campbell
Specialist in Energy Policy

March 15, 2011

Congressional Research Service

7-5700

www.crs.gov

R41694

Summary of the Crisis

The earthquake on March 11, 2011, off the east coast of Honshu, Japan's largest island, reportedly caused an automatic shutdown (called a "scram") of eleven of Japan's fifty-five operating nuclear power plants.¹ Most of the shutdowns proceeded without incident. The plants closest to the epicenter, Fukushima and Onagawa (see **Figure 1**), were damaged by the earthquake and resulting tsunami.

¹ *BBC News*, "Timeline: Japan Power Plant Crisis," March 13, 2011, <http://www.bbc.co.uk/news/science-environment-12722719>.

Figure 1. Japan and Earthquake Epicenter



Source: Nuclear Energy Institute, edited by CRS.

Notes: http://i1107.photobucket.com/albums/h384/reactor1/japan_map1.jpg.

Tokyo Electric Power Company (TEPCO) operates the Fukushima nuclear power complex in the Futaba district of Fukushima prefecture in Northern Japan, consisting of six nuclear units at the Daiichi station and four nuclear units at the Daini station. All the units at the Fukushima complex

are boiling water reactors² with reactors 1, 2, and 3 being the General Electric Mark I design (see **Figure 2**). The Fukushima Daiichi reactors entered commercial operations in the years from 1971 (reactor 1) to 1979 (reactor 6). At the time of the earthquake, reactors 1, 2, and 3 at Daiichi were operational and shut down after the quake, while reactors 4, 5, and 6 were already shut down for routine inspections. All four of the Daiichi reactors were operational at the time of the earthquake and taken down after the quake.

Nuclear fuel rods in a reactor continue to produce heat when the reactor is shut down. To stop the nuclear reaction, control rods³ are inserted into the reactor. During the cool-down phase, a source of electricity is needed to operate pumps and circulate water in the reactor. Under normal conditions, it would take a few days for a reactor core to cool down to a “cold shutdown” state.⁴

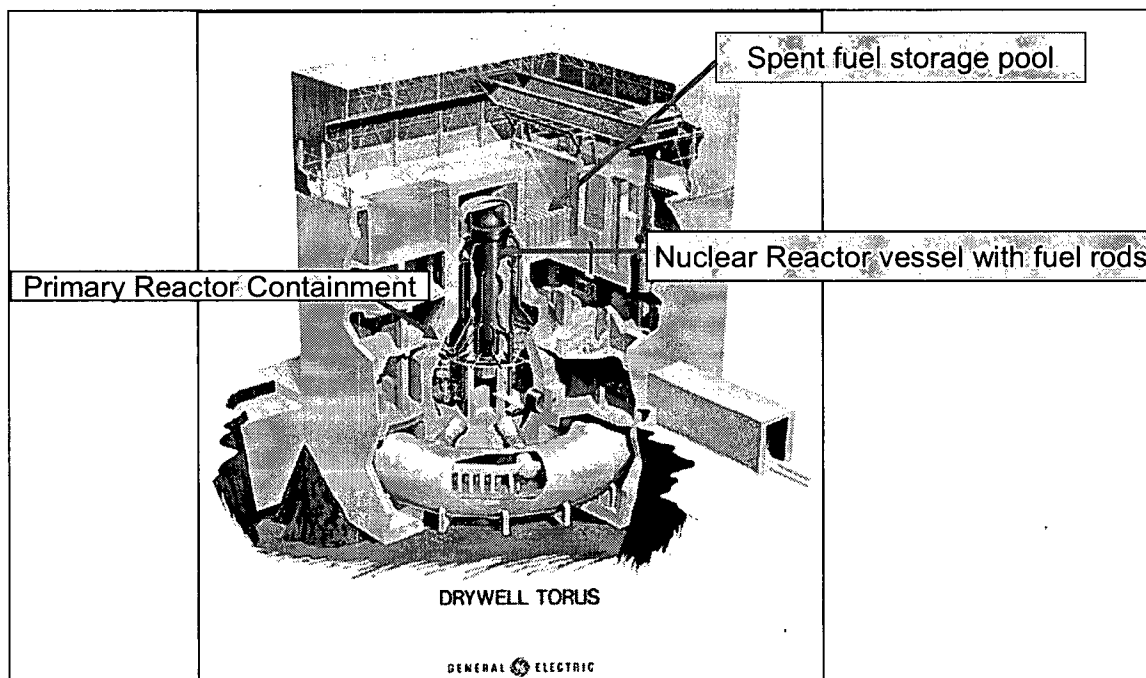
The magnitude 9.0 earthquake triggered a ten meter (33 foot) high tsunami which struck the coast, devastating much of the area and overtopping a six meter high sea wall at Fukushima Daiichi station. The station was cut off from Japan’s national electricity grid. Diesel generators at the Daiichi station initially took over the power load but later failed. The tsunami flooded the backup diesel powered electric generators at the station, sweeping away the diesel fuel tanks, and knocking out the backup cooling capability for the station’s nuclear reactors.⁵

² A common nuclear power reactor design in which water flows upward through the core, where it is heated by fission and allowed to boil in the reactor vessel. The resulting steam then drives turbines, which activate generators to produce electrical power. BWRs operate similarly to electrical plants using fossil fuel, except that the BWRs are powered by 370–800 nuclear fuel assemblies in the reactor core rather than burning coal or natural gas to create steam. U.S. Nuclear Regulatory Commission, “Boiling-Water Reactor (BWR),” <http://www.nrc.gov/reading-rm/basic-ref/glossary/boiling-water-reactor-bwr.html>.

³ A rod, plate, or tube containing a material such as hafnium, boron, etc., used to control the power of a nuclear reactor. By absorbing neutrons, a control rod prevents the neutrons from causing further fissions. U.S. Nuclear Regulatory Commission, “Control Rod,” <http://www.nrc.gov/reading-rm/basic-ref/glossary/control-rod.html>.

⁴ U.S. Nuclear Regulatory Commission, “Cold Shutdown,” <http://www.nrc.gov/reading-rm/basic-ref/glossary/cold-shutdown.html>.

⁵ *BBC News*, “Timeline: Japan Power Plant Crisis,” March 13, 2011, <http://www.bbc.co.uk/news/science-environment-12722719>.

Figure 2. General Electric Mark I Boiling Water Reactor and Containment Building

Source: <http://www.nrc.gov/>.

TEPCO immediately began to experience problems with the Daiichi units, as temperatures began to rise in the reactors. With the primary and secondary cooling systems for the Daiichi reactors offline, TEPCO began trying to cool the reactor cores with seawater. Boron⁶ has been added to the seawater to help slow down the nuclear reactions and cool down the reactor cores. Pressure began building in Daiichi reactor 1, resulting in an explosion on March 13, 2011, and radiation leak possibly from a build-up of hydrogen gas. Falling water levels in the reactor core are thought to have exposed fuel rods, leading to oxidation of the zirconium cladding resulting in the formation of hydrogen gas.

An explosion was reported at reactor 3 on March 14, 2011, with an associated release of radiation. At this time, while the containment structures at reactors 1 and 3 were breached, the reactor vessels themselves were thought to be undamaged. Falling water levels in reactor 2 and increasing pressure eventually led to another explosion on March 15, 2011, resulting in damage to the roof of the building above the reactor vessel and a release of radiation. It was unclear at that time whether the reactor vessel itself was damaged in the explosion. Fires were also reported at reactor 4, with the loss of water levels in the spent fuel pool. Elevated radiation levels measured around reactor 4 caused the temporary suspension of reactor control room operations on March 16, 2011. The spent fuel pool of reactor 3 was also reported to be boiling, with the reported release of radioactive steam. Water is also being introduced to the non-operational reactors 5 and 6 at the Daiichi station. The Japanese military may be enlisted to pump water into reactor 3 and the spent fuel pool in reactor 4.⁷

⁶ Boron is the main material that goes into control rods used to halt or slow fission reactions in nuclear reactors. *Japan Times Online*, "Seoul to Send Boron in Bid to Cool Reactors," March 16, 2011, <http://search.japantimes.co.jp/cgi-bin/nn20110317a9.html>.

⁷ *Reuters*, "Timeline for Japan's Unfolding Nuclear Crisis," March 16, 2011, <http://www.vision.org/visionmedia/> (continued...)

Efforts continue in Japan to try to cool the nuclear reactors at the Daiichi station and keep water in the spent fuel pools. Loss of cooling water has reportedly led to “prolonged” exposure of fuel rods in the reactor cores, resulting in hydrogen gas formation. The explosions at reactors 1, 2, and 3 are thought to have been caused by the buildup of hydrogen gas. TEPCO is trying to build a new power line to supply electricity to the Daiichi station. It is unclear how long it will take to complete the line. However, it is not clear to what extent that any of the reactor core cooling systems are functioning at reactors 1, 2 and 3. Experts suggest that as long as the fuel cores can be kept covered with liquid water, the reactors cores should continue to cool, and a cold shutdown state may yet be achieved in all the Daiichi reactors.

If the fuel rods in the reactor cores cannot be cooled down, temperatures will continue to increase and the nuclear fuel assemblies would likely melt. In such a situation, a full meltdown or explosion could result in a major breach of the reactor vessel and extreme measures may be needed to contain a major radioactive release. This could mean filling the surviving reactor containment structures with concrete. Eventually, a reinforced concrete structure would be needed over the reactor containment buildings and the site monitored for radioactive releases.

The Fukushima Daini station is approximately 12 kilometers south of the Daiichi station, and further removed from the epicenter of the earthquake. The earthquake and tsunami apparently caused damage to the emergency core cooling systems at reactors 1, 2, and 4, while reactor 3 was apparently able to shut down without problems. The station reportedly retained offsite power to maintain its ability to circulate cooling water in the reactor. The makeup water and condensate systems were used as an emergency measure to maintain cooling water levels in reactors 1, 2, and 4. TEPCO has since made repairs to the cooling systems, and stable, cold shutdown conditions are reported at all Daini reactors as of March 14, 2011.⁸

The United States and other countries, as well as the International Atomic Energy Agency, are providing assistance to Japan to deal with the nuclear crisis. According to the U.S. State Department, Japan has requested foreign assistance including consequence management support, transport of pumps, boron, fresh water, remote cameras, global hawk surveillance, evacuation support, medical support, decontamination, and radiation monitoring equipment. A U.S. Nuclear Regulatory Commission advisory team is in Japan at the Japanese government’s request. The Department of Energy has sent radiation monitoring equipment, and the U.S. Department of Defense has provided high-pressure water pumps and fire trucks.

(...continued)

article.aspx?id=42042.

⁸ *World Nuclear News*, “All Fukushima Daini Units in Cold Shutdown,” March 14, 2011, http://www.world-nuclear-news.org/IT-All_Fukushima_Daini_units_in_cold_shutdown-1503114.html.

Author Contact Information

Richard J. Campbell
Specialist in Energy Policy
rcampbell@crs.loc.gov, 7-7905



U.S. Tsunami Programs: A Brief Overview

Peter Folger

Specialist in Energy and Natural Resources Policy

March 18, 2011

Congressional Research Service

7-5700

www.crs.gov

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Summary

A 9.0 magnitude earthquake struck off Japan's northeast coast near Honshu in the afternoon on Friday, March 11, 2011 (12:46 a.m. eastern time in the United States). The earthquake triggered a tsunami that has caused widespread devastation to parts of the coastal regions in Japan closest to the earthquake. The tsunami traveled across the Pacific Ocean, and the National Oceanic and Atmospheric Administration (NOAA) tsunami warning centers in Hawaii and Alaska issued tsunami warnings for coastal areas of Hawaii, Guam, the Commonwealth of the Northern Marianas, American Samoa, Alaska, and California. Although the tsunami caused widespread damage along the northeast coast of Japan, tsunami warnings issued from the tsunami warning centers gave the above U.S. Pacific territories, Hawaii, and the U.S. West Coast adequate warning to prepare for incoming waves.

NOAA's National Weather Service (NWS) manages the two tsunami warning centers that monitor, detect, and issue warnings for tsunamis generated in the Pacific Ocean. The NWS operates the Pacific Tsunami Warning Center (PTWC) at Ewa Beach, HI, and the West Coast/Alaska Tsunami Warning Center (WC/AKTWC) at Palmer, AK. The National Tsunami Hazards Mitigation Program (NTHMP) assists states in emergency planning and in developing maps of potential coastal inundation for a tsunami of a given intensity. The goal of NTHMP is to ensure adequate advance warning of tsunamis along all the U.S. coastal areas and appropriate community response to a tsunami event.

The tsunami warning centers monitor and evaluate data from seismic networks and determine if a tsunami is likely based on the location, magnitude, and depth of an earthquake. If the center determines that a tsunami is likely, it transmits a warning message to NOAA's weather forecasting offices and state emergency management centers, as well as to other recipients. The centers monitor coastal water-level data, typically with tide-level gages, and data from NOAA's network of Deep-ocean Assessment and Reporting of Tsunamis (DART) detection buoys to confirm that a tsunami has been generated, and if not, to cancel any warnings. Shortly after the 2004 tsunami in the Indian Ocean, Congress passed the Tsunami Warning and Education Act (P.L. 109-424), to enhance and modernize the existing Pacific Tsunami Warning System to increase coverage, reduce false alarms, and increase the accuracy of forecasts and warnings, among other purposes. As a result, the array was expanded to a total of 39 DART buoys in March 2008.

Funding for the NOAA tsunami program supports three main categories of activities: (1) *warning*, such as the activities of the tsunami warning centers and DART network; (2) *mitigation*, such as the activities of NTHMP; and (3) *research*, including activities conducted by the Pacific Marine Environmental Laboratory and the National Buoy Data Center. The Government Accountability Office (GAO) noted that total funding for all these activities ranged from \$5 million to \$10 million annually between FY1997 and FY2004, but increased after the 2004 Indian Ocean tsunami from approximately \$27 million in FY2005 to \$42 million in FY2009. Funding in FY2010 was \$41 million.

Currently, 7 of the 39 DART buoys are not operational. Of the 7 buoys that are not working, 5 are deployed in the Pacific Ocean. If more DART buoys fail, and regional forecasting capabilities are impaired, then the NOAA Administrator must notify Congress within 30 days. According to NOAA, the current continuing resolution (P.L. 112-4) does not allow the NWS to allocate FY2011 funding to purchase ship time required to repair the 7 DART buoys that are not working.

Contents

Japan Earthquake and Tsunami	1
Tsunami Warning Centers	1
The National Tsunami Hazards Mitigation Program	2
Detecting Tsunamis and Issuing Warnings	2
Warnings Triggered by the March 11, 2011, Tsunami	2
The DART Buoy Network.....	4
Tsunami Warnings from the Japan Meteorological Agency	5
Funding for the Tsunami Program	6
Additional Reading	7

Figures

Figure 1. Flow Chart of the Tsunami Warning System	3
Figure 2. Results from NOAA Model Depicting the March 11, 2011 Tsunami Propagating Across the Pacific Ocean.....	4
Figure 3. Locations of DART Buoys	5

Contacts

Author Contact Information	8
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Japan Earthquake and Tsunami

A 9.0 magnitude massive earthquake struck off Japan's northeast coast near Honshu in the afternoon on Friday, March 11, 2011 (12:46 a.m. eastern time in the United States). The earthquake triggered a tsunami¹ that has caused widespread devastation to parts of the coastal regions in Japan closest to the earthquake. The tsunami traveled across the Pacific Ocean, and the National Oceanic and Atmospheric Administration (NOAA) tsunami warning centers in Hawaii and Alaska issued tsunami warnings for coastal areas of Hawaii, Guam, the Commonwealth of the Northern Marianas, American Samoa, Alaska, and California. The first tsunami waves reached Hawaii in the early morning of March 11,² and reached the west coast of the United States later in the morning (Pacific time). Although the tsunami caused widespread damage along the northeast coast of Japan, tsunami warnings issued from the tsunami warning centers gave the above U.S. Pacific territories, Hawaii, and the U.S. West Coast adequate warning to prepare for incoming waves.³ In addition, the long distance traveled across the Pacific from the earthquake epicenter attenuated the energy associated with the tsunami thousands of miles from its source. In contrast, the city of Sendai, Japan, is just 80 miles west of the epicenter.⁴

Tsunami Warning Centers

NOAA's National Weather Service (NWS) manages the two tsunami warning centers that monitor, detect, and issue warnings for tsunamis generated in the Pacific Ocean. The NWS operates the Pacific Tsunami Warning Center (PTWC) at Ewa Beach, HI, and the West Coast/Alaska Tsunami Warning Center (WC/AKTWC) at Palmer, AK. The PTWC monitors for tsunamis and issues warnings for the Hawaiian Islands, the U.S. Pacific territories, and other U.S. and international interests in the Pacific Basin. The center was established in 1949, after a strong earthquake and massive landslides off the coast of southwest Alaska caused a disastrous tsunami for the Hawaiian Islands only hours later. The WC/AKTWC was established in 1967, following a magnitude 9.2 earthquake that struck Anchorage, AK, in 1964 and caused major earthquake and localized tsunami damages.⁵ The WC/AKTWC is responsible for issuing tsunami warnings to emergency management officials in Alaska, British Columbia (Canada), Washington State, Oregon, and California. The WC/AKTWC also serves as the center for warning U.S. populations located in the western Atlantic.

¹ A tsunami is a large ocean wave typically caused by a subsea earthquake or volcanic eruption that can cause extreme destruction when it strikes land.

² CNN U.S., *Tsunami Waves Reach Hawaii, Eye West Coast*, CNN Wire Staff, March 11, 2011, <http://www.cnn.com/2011/US/03/11/tsunami/index.html?hpt=T1>.

³ Despite the tsunami warnings, some communities along the West Coast and in Hawaii suffered damages. For example, some boats and harbor facilities were damaged by the tsunami in Crescent City, CA, although most of the fishing fleet headed out to sea to avoid the waves before they reached the harbor, according to the *Los Angeles Times*. Crescent City has suffered tsunami damage in the past, particularly from the 1964 Good Friday earthquake that struck Alaska. See Maria L. La Ganga, "Crescent City Comes to Grips with Tsunami's Devastation," *Los Angeles Times*, March 13, 2011, <http://www.latimes.com/news/local/la-me-japan-quake-crescent-city-20110313,0,5296998.story>.

⁴ U.S. Geological Survey, Earthquake Hazards Program, <http://earthquake.usgs.gov/earthquakes/eqinthenews/2011/usc0001xgp/#details>.

⁵ See NOAA, NWS, "How *TsunamiReady* Helps Communities and Counties at Risk," <http://www.tsunamiready.noaa.gov/>.

The National Tsunami Hazards Mitigation Program

The National Tsunami Hazards Mitigation Program (NTHMP) assists states in emergency planning and in developing maps of potential coastal inundation for a tsunami of a given intensity. The NTHMP also operates tsunami disaster outreach and education programs through NOAA's *TsunamiReady* program. In 1992, NOAA launched the NTHMP to address the credibility of Pacific tsunami warnings and to reduce the number of "false alarms." The goal of NTHMP is to ensure adequate advance warning of tsunamis along all the U.S. coastal areas and appropriate community response to a tsunami.⁶

Detecting Tsunamis and Issuing Warnings

The tsunami warning centers monitor and evaluate data from seismic networks and determine if a tsunami is likely based on the location, magnitude, and depth of an earthquake.⁷ If the center determines that a tsunami is likely, they transmit a warning message to NOAA's weather forecasting offices and state emergency management centers, as well as to other recipients. The centers monitor coastal water-level data, typically with tide-level gages, and data from NOAA's network of Deep-ocean Assessment and Reporting of Tsunamis (DART) detection buoys to confirm that a tsunami has been generated, and if not, to cancel any warnings.⁸ A generalized decision tree network for the earthquake-detection-through-warning process is shown in **Figure 1**.

Warnings Triggered by the March 11, 2011, Tsunami

Initial warnings of an impending tsunami were first issued by the PTWC based on seismic information before the network of DART buoys and tide gages actually detected a wave generated by the earthquake.⁹ According to NOAA, initial tsunami warnings are normally based only on seismic information to provide the earliest possible alert.¹⁰ Because tsunamis travel more slowly than seismic waves, confirmation of a tsunami may take much longer than confirmation of an earthquake. That was the case for the March 11, 2011, tsunami. The DART network first detected the earthquake-triggered wave 27 minutes after the earthquake struck at 2:46 p.m. local time in Japan,¹¹ confirming that a tsunami had been generated and could lead to significant widespread inundation around the Pacific Ocean. **Figure 2** shows results from a model depicting the tsunami wave propagation across the Pacific Ocean.

⁶ NOAA FY2012 Blue Book, Chapter 5, National Weather Service, p. 691, http://www.corporateservices.noaa.gov/nbo/fy12_presidents_budget/National_Weather_Service_FY12.pdf.

⁷ Nearly all tsunamis are triggered by subsea earthquakes, although some may also be caused by underwater volcanic eruptions or landslides.

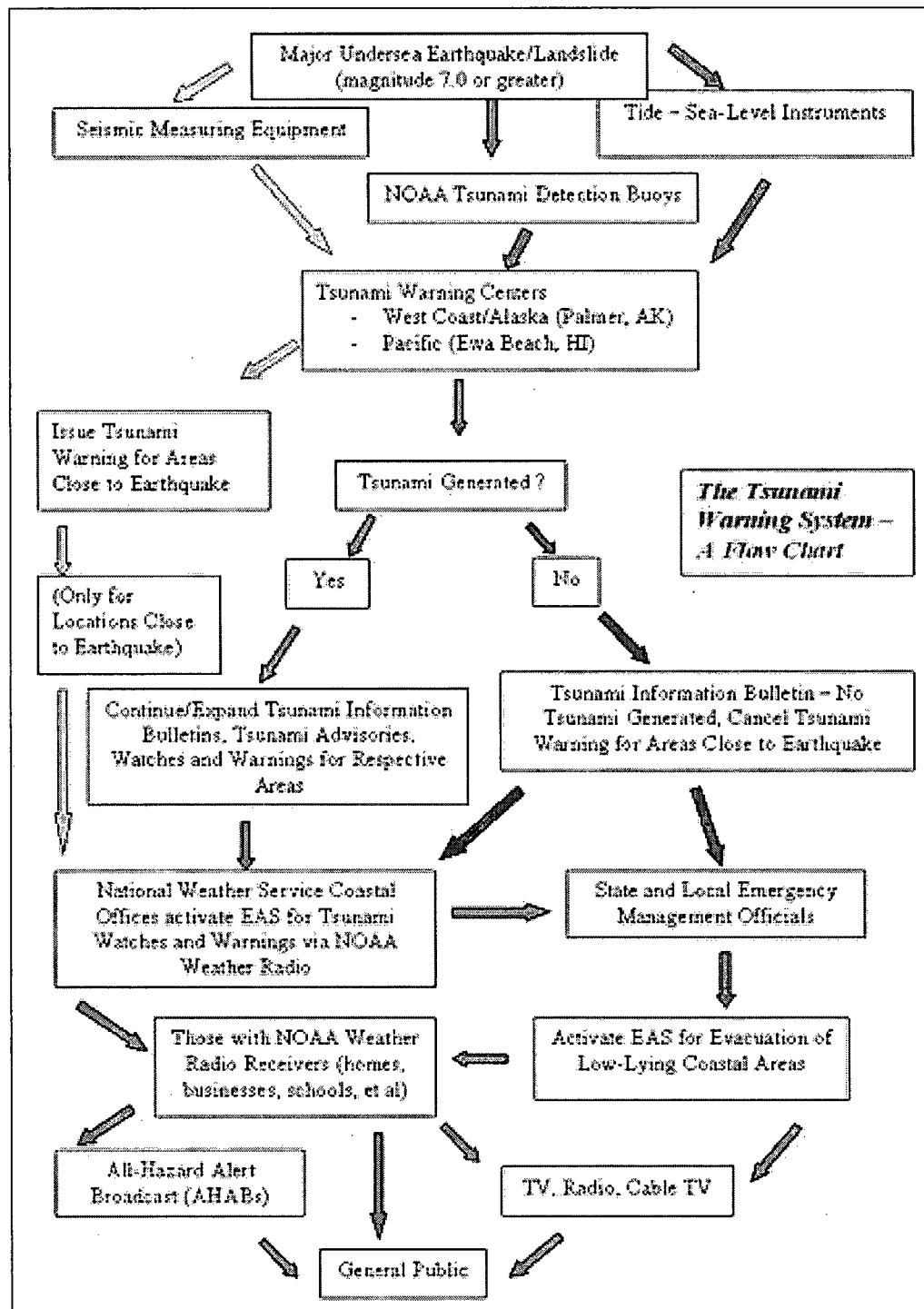
⁸ U.S. Government Accountability Office, *U.S. Tsunami Preparedness: NOAA Has Expanded Its Tsunami Programs, but Improved Planning Could Enhance Effectiveness*, GAO-10-490, April 2010, p. 5.

⁹ DART buoy 21418; telephone conversation with Laura Furgione, Deputy Director, National Weather Service, March 15, 2011.

¹⁰ NWS, Pacific Tsunami Warning Center, *About PTWC Messages*, http://ptwc.weather.gov/ptwc/about_messages.php.

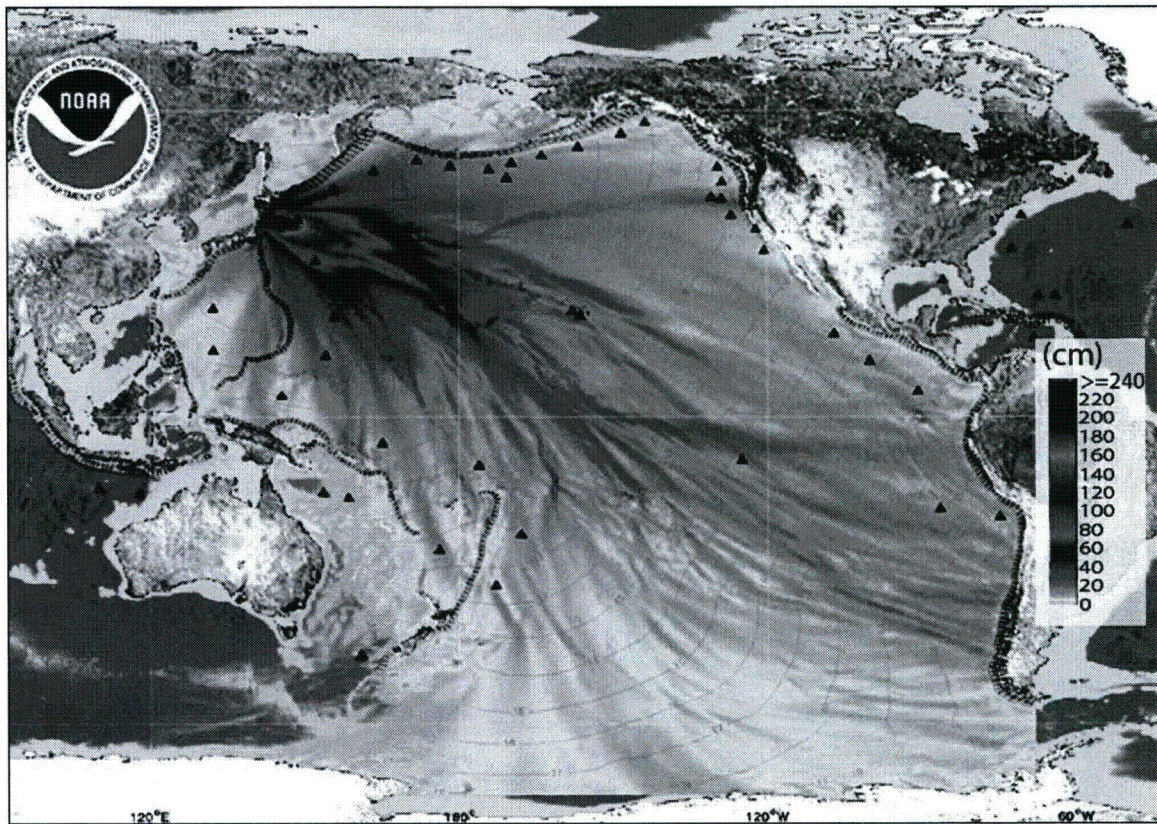
¹¹ Telephone conversation with Laura Furgione, March 15, 2011.

Figure 1. Flow Chart of the Tsunami Warning System



Source: NOAA, *How Does the Tsunami Warning System Work?* <http://www.tsunami.noaa.gov/images/warning-system-smaller.jpg>.

Figure 2. Results from NOAA Model Depicting the March 11, 2011 Tsunami Propagating Across the Pacific Ocean



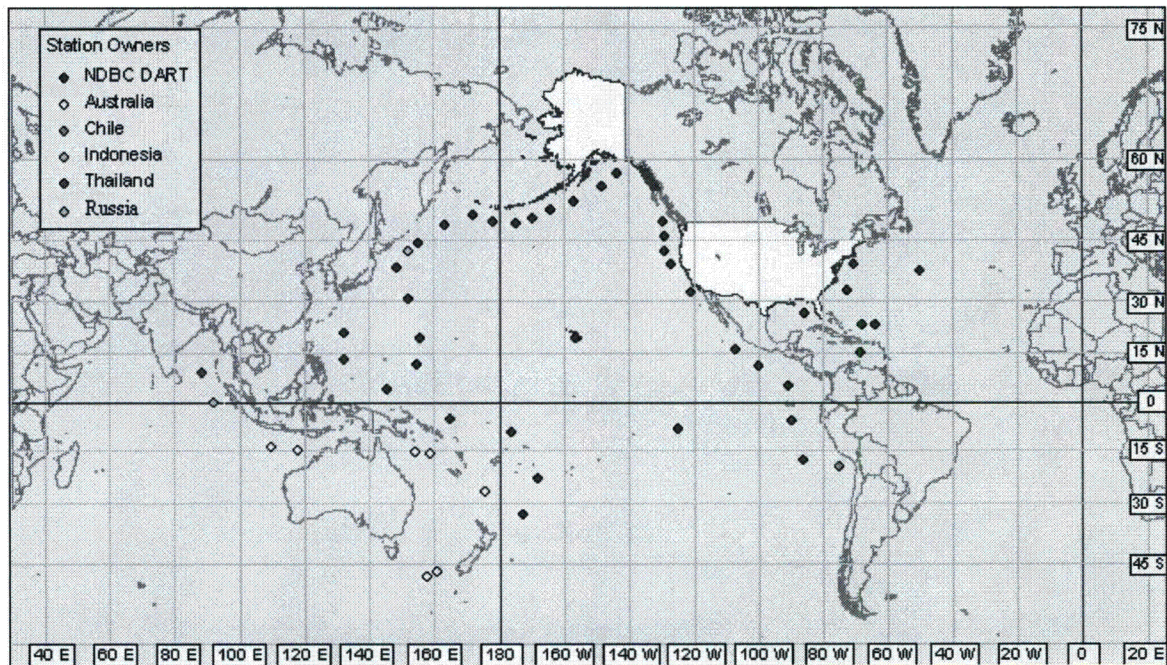
Source: NOAA Center for Tsunami Research, Pacific Marine Environmental Laboratory, <http://nctr.pmel.noaa.gov/honshu20110311/>.

Notes: Colors indicate the wave amplitude in centimeters (see scale bar on right side of figure); contour labels indicate the computed tsunami arrival times. Black triangles indicate location of Deep-ocean Assessment and Reporting of Tsunamis (DART) detection buoys.

The DART Buoy Network

NOAA first completed a six-buoy DART array in 2001 in the Pacific Ocean. Shortly after the 2004 Indian Ocean earthquake and tsunami that killed over 200,000 people, Congress passed H.R. 1674, the Tsunami Warning and Education Act (P.L. 109-424), to enhance and modernize the existing Pacific Tsunami Warning System to increase coverage, reduce false alarms, and increase the accuracy of forecasts and warnings, among other purposes. In part, the 2004 tsunami provided the impetus to expand and upgrade the DART system and to improve the U.S. capability to detect and issue warnings for tsunamis generally. As a result, the array was expanded to a total of 39 DART buoys in March 2008.¹² (See **Figure 3**.)

¹² According to NOAA, 33 of the DART buoys are deployed in the Pacific Ocean, and the rest are deployed in the Atlantic Ocean and Caribbean. NOAA National Data Buoy Center, Deep-ocean Assessment and Reporting of Tsunamis (DART) Description, <http://www.ndbc.noaa.gov/dart/dart.shtml>.

Figure 3. Locations of DART Buoys

Source: NOAA National Data Buoy Center, <http://www.ndbc.noaa.gov/dart.shtml>

Notes: The United States owns and operates 39 of the DART Buoys.

Currently, 7 of the 39 buoys are not operational and in need of repair. Of the 7 buoys that are not working, 5 are deployed in the Pacific Ocean. Other countries also operate DART buoys in the Pacific (e.g., Australia and Russia), but if another U.S. DART buoy ceases to function less than 80% of the U.S. DART network would be operational. The Tsunami Warning and Education Act (P.L. 109-424) requires that NWS ensure that maintaining operations of tsunami detection equipment is the highest priority within the tsunami forecasting and warning program at NOAA. Further, P.L. 109-424 requires that the NOAA Administrator notify Congress¹³ within 30 days of (1) impaired regional forecasting capabilities due to equipment or system failures; and (2) significant contractor failures or delays in completing work associated with the tsunami forecasting and warning system.¹⁴

Tsunami Warnings from the Japan Meteorological Agency

According to the International Tsunami Information Center, which operates under the International Oceanographic Commission (IOC)—part of the U.N.'s Educational, Scientific, and Cultural Organization (UNESCO)—the Japan Meteorological Agency (JMA) issued a major

¹³ Specifically, P.L. 109-424 requires the NOAA Administrator to notify the Committee on Commerce, Science, and Transportation in the Senate and the Committee on Science (now Science, Space, and Technology) in the House.

¹⁴ The statute does not define what is considered impairment of the forecasting abilities, or what is a threshold for significant contractor failures or delays. However, the committee report accompanying the bill states that NWS is required to notify Congress when the tsunami forecasting capabilities are impaired for more than three months; U.S. Congress, House Science, *United States Tsunami Warning and Education Act*, report to accompany H.R. 1674, 109th Cong., 2nd sess., 2006, H.Rept. 109-698, p. 10. NWS uses an 80% operational threshold as its internal guideline; Telephone conversation with Laura Furgione, March 15, 2011.

tsunami warning 3 minutes after the earthquake struck at 3:46 pm local time.¹⁵ The first regional tsunami bulletins were issued by the North West Pacific Tsunami Advisory Centre (NWPTAC), operated by the JMA, about 9 minutes after the earthquake occurred.¹⁶ The first tsunami wave reached the Japan coastline nearest to the epicenter about 15 minutes after the earthquake.¹⁷

The network of tsunami warning centers is coordinated under the umbrella of the IOC, through its Tsunami Programme, which falls under the auspices of UNESCO. According to the IOC, its role is coordinating the regional tsunami warning systems.¹⁸ The IOC coordinates the Indian Ocean Tsunami Warning and Mitigation System (IOTWS), in addition to its role in the Pacific, per U.N. mandate after the 2004 Indian Ocean tsunami. The IOC also coordinates similar systems in the Caribbean (CARIBE-EWS) and the North-Eastern Atlantic and Mediterranean (NEAMTWS).

The IOC noted that for the March 11 earthquake the warning centers operated well and according to expectations: the seismic systems identified the location and magnitude of the earthquake within minutes and allowed for early warnings; the DART buoys confirmed the initial tsunami warnings and alerts; and the communication systems allowed for near-real time monitoring.¹⁹ As a result, countries with Pacific Ocean coastlines received adequate warning in time to prepare for the oncoming tsunami waves. Northeast Japan, however, suffered the worst damage because it is so close to the epicenter, and the waves struck before people could evacuate to safety. In such instances, the ground shaking caused by the earthquake may be the only early indicator for people to act upon who live closest to the epicenter of an impending tsunami.²⁰

Funding for the Tsunami Program

Funding for the NOAA tsunami program supports three main categories of activities: (1) *warning*, such as the activities of the tsunami warning centers and DART network; (2) *mitigation*, such as the activities of NTHMP; and (3) *research*, including activities conducted by the Pacific Marine Environmental Laboratory and the National Buoy Data Center.²¹ In the NOAA budget, these activities are cross-cutting among different activities under the NWS line item.²² GAO, which analyzed funding data for the three general categories, noted that total funding for all these activities ranged from \$5 million to \$10 million annually between FY1997 and FY2004, but increased after the 2004 Indian Ocean tsunami from approximately \$27 million in FY2005 to \$42 million in FY2009. According to GAO, the proportion of funding allocated to warning activities increased from about 40% of the total in FY2004 to approximately 70% of the funding in FY2009.²³ The proportion allocated to mitigation decreased from approximately 50% of the total

¹⁵ UNESCO, International Tsunami Information Center, <http://itic.ioc-unesco.org/>.

¹⁶ World Meteorological Organization, March 11, 2011, http://www.wmo.int/pages/mediacentre/news/index_en.html.

¹⁷ UNESCO, Intergovernmental Oceanographic Commission, <http://ioc-unesco.org/>.

¹⁸ UNESCO, International Tsunami Information Center, <http://itic.ioc-unesco.org/>.

¹⁹ Ibid.

²⁰ Personal communication, Dr. Gregory van der Vink, seismologist, March 14, 2011.

²¹ U.S. Government Accountability Office, *U.S. Tsunami Preparedness: NOAA Has Expanded Its Tsunami Programs, but Improved Planning Could Enhance Effectiveness*, GAO-10-490, p. 7.

²² For example, the FY2010 enacted budget contains a line item: Strengthen U.S. Tsunami Warning Network—\$23.264 million. However, research activities for tsunamis are included in the overall budget for the Pacific Marine Environmental Laboratory and for the National Buoy Data Center.

²³ U.S. Government Accountability Office, *U.S. Tsunami Preparedness: NOAA Has Expanded Its Tsunami Programs*, (continued...)

in FY2004 to about 30% in FY2009, while the proportion for research remained steady between about 6% to 10%.

Funding for the NWS tsunami program for FY2010 was approximately \$41 million, allocated as follows:

- \$23 million—Strengthen U.S. Tsunami Warning Program;
- \$13 million—Spectrum Auction funding;²⁴
- \$4 million—NWS/Local Warnings and Forecasts; and
- \$1 million—Office of Oceanic and Atmospheric Research/Pacific Marine Environmental Laboratory.²⁵

In 2010, the Government Accountability Office (GAO) found that NOAA had made progress since 2005 in expanding and strengthening its tsunami warning and mitigation capabilities, including the deployment of the 39 DART buoys. GAO also found that operating and maintaining the buoys has proved difficult and costly, consuming about 28% of the total NOAA Tsunami Warning Program budget in FY2009.²⁶ GAO noted that NOAA is exploring ways to reduce maintenance costs by improving buoy reliability.

According to NOAA, the current continuing resolution (P.L. 112-4) does not allow the NWS to allocate FY2011 funding to purchase ship time required to repair the seven DART buoys that are not working.²⁷ As noted above, the delay or failure in completing work associated with the tsunami forecasting and warning system by contractors should also trigger notification of Congress by the NOAA Administrator under P.L. 109-424.

Additional Reading

CRS Report RL33861, *Earthquakes: Risk, Detection, Warning, and Research*, by Peter Folger.

CRS Report RL33436, *Japan-U.S. Relations: Issues for Congress*, coordinated by Emma Chanlett-Avery.

CRS Report R41023, *Haiti Earthquake: Crisis and Response*, by Rhoda Margesson and Maureen Taft-Morales.

(...continued)

but Improved Planning Could Enhance Effectiveness, GAO-10-490, p. 8.

²⁴ Starting in FY2009, the tsunami program received funding from the proceeds of the Federal Communication Commission's auctioning of broadcast frequency spectrum. In FY2012, the program will be augmented by \$12.7 million from auction proceeds, according to NOAA. Total funding received from auction proceeds will be approximately \$50 million for the tsunami program at the end of FY2012, according to GAO.

²⁵ E-mail from Lara Hinderstein, NOAA Budget Outreach and Communications, March 11, 2011.

²⁶ U.S. Government Accountability Office, *U.S. Tsunami Preparedness: NOAA Has Expanded Its Tsunami Programs, but Improved Planning Could Enhance Effectiveness*, GAO-10-490, p. 21.

²⁷ Approximately \$4 million would be required, according to NOAA. Telephone conversation with Laura Furgione, March 15, 2011.

Author Contact Information

Peter Folger
Specialist in Energy and Natural Resources Policy
pfolger@crs.loc.gov, 7-1517



Japan 2011 Earthquake: U.S. Department of Defense (DOD) Response

Andrew Feickert

Specialist in Military Ground Forces

Emma Chanlett-Avery

Specialist in Asian Affairs

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Prepared for Members and Committees of Congress

Overview

With almost 40,000 U.S. troops stationed in Japan, the March 11, 2011, earthquake and tsunami is unique in that U.S. forces and associated resources were located in close proximity to deal with the crisis. All services—Army, Navy, Marine Corps, and Air Force—are present in Japan in various capacities. In addition, U.S. forces train regularly with their Japanese Self Defense Force (SDF) counterparts, including many humanitarian assistance and disaster relief exercises.

With 100,000 SDF troops called up to respond to the disaster, U.S. forces were able to coordinate their efforts almost immediately to provide support for the Japanese responders. Within five days of the earthquake, the SDF had deployed 76,000 personnel (45,000 ground, 31,000 air and maritime); 194 rotary aircrafts and 322 fixed-wings; and 58 ships. As of March 16, the SDF had rescued 19,300 people, in addition to supporting activities at the troubled nuclear reactors.¹

Operational Update²

DOD officials report that as of the morning of March 17, 14 U.S. naval ships and their aircraft and 17,000 sailors and Marines are now involved in humanitarian assistance and disaster relief efforts in and around Japan. These efforts have included 132 helicopter sorties and 641 fixed-wing sorties moving both people and supplies, assisting in search and rescue efforts, and delivering 129,000 gallons of water and 4,200 pounds of food. These totals are increasing by the hour, although some helicopter activities have been limited by poor weather and visibility. All search and rescue assets from Okinawa, the southernmost part of Japan, have been moved to Yokota Air base outside of Tokyo to be deployed to the north. Further details are in the sections on each branch's operations below.

DOD Funding³

On March 12, Secretary of Defense Gates authorized U.S. Pacific Command (USPACOM) to continue disaster relief operations and approved \$35 million in Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) funding for these purposes. As the scope and duration of DOD's support becomes better defined, it is possible that additional funding will be required.

Status of DOD Facilities and Personnel

Initial DOD efforts after the earthquake were focused on what can be described as “force protection,” such as relocating naval vessels and aircraft so that potential damage from the impending tsunami would be mitigated, as well as protecting and accounting for U.S. military personnel, 43,000 dependents, and 5,000 DOD civilian employees stationed in Japan. These force

¹ Japanese Ministry of Defense, <http://www.mod.go.jp/j/press/news/2011/03/16d.html>

² Cheryl Pellerin, “Ships, Aircraft Support Japan Relief Effort,” *American Forces Press Service*, March 16, 2011.

³ Operational Update provide to CRS by the Office of Secretary of Defense Office for Legislative Affairs, March 16, 2011.

protection efforts appear to have been successful, as there were no reported DOD-related fatalities and no reports of major damage to DOD facilities or equipment.⁴

Voluntary Departure of DOD Dependents⁵

After the State Department authorized voluntary departure for family members and dependents of U.S. government personnel who wish to leave northeast Japan on March 17, DOD stated that it would implement the State Department's plan for eligible DOD dependents. It was reported that Navy bases in the Tokyo area will begin voluntary evacuations for family members as early as the evening of March 17. The Navy reportedly has the capability to evacuate up to 10,000 people per day.

Operation Tomodachi⁶

DOD's relief effort has been designated "Operation Tomodachi"—Japanese for "friend"—and consists at this point primarily of search-and-rescue missions and the delivery of humanitarian aid. U.S. airlift capability is particularly valuable in reaching survivors in the devastated areas. The U.S. airbase Misawa, located in Aomori prefecture in northeastern Japan, was shaken violently by the earthquake but escaped with only minor damage. The facility is being used as a forward operating base for both U.S. and SDF forces. In addition, the government of Japan granted permission for U.S. forces to use Yamagata airport, the first time such an allowance has been approved. SDF troops are also using the facility.⁷

Response to Damaged Nuclear Reactors

It is not yet clear to what extent DOD will be involved in responding to the problems at the affected nuclear reactor. On a force protection level, U.S. forces both ashore in Japan as well as at sea and in the air are well-equipped to monitor radiation levels as well as to decontaminate personnel and equipment that might become contaminated by radiological materials. On March 15, sensitive instrumentation on the USS *George Washington* in Yokosuka detected low levels of radioactivity from the Fukushima plant.

As the crisis surrounding the stricken reactors at the Fukushima Dai-ichi facility intensified, it appeared that the United States was stepping up efforts to assist the government of Japan (GoJ). On March 16, news outlets reported that the Global Hawk drone would fly over the reactor site in order to collect data and imagery for the GoJ.⁸ On March 17, the U.S. Navy Seventh Fleet reported that five high-pressure water pumps from Sasebo and 100 Nuclear, Biological, Chemical

⁴ Cheryl Pellerin, "Military Gears Up to Help Japan," *American Forces Press Service*, March 11, 2011.

⁵ Operational Update provide to CRS by the Office of Secretary of Defense Office for Legislative Affairs, March 17, 2011 and Erik Slavin, "Navy to Begin Voluntray Evacuation of Families in Japan," *Stripes.com*, March 17, 2011.

⁶ Information in this section is taken from Fred W. Baker III, "U.S. Forces Provide Relief Aid to Japan," *American Forces Press Service*, March 13, 2011; Chris Carroll et al, "Relief Efforts Limited Days After the Earthquake," *American Forces Press Service*, March 13, 2011; and Phil Stewart, "More U.S. Ships Head to Japan, Radiation Risk Eyed," *Reuters.com*, March 14, 2011.

⁷ "Japan, U.S. Engage in Record-scale Cooperation for Quake Relief," *Sankei News*, March 17, 2011.

⁸ "Northrop Drone Set to Overfly Japan Reactor, Seek Data on Damage," *Bloomberg News*, March 16, 2011.

(NBC) suits and masks were delivered to the government of Japan to be employed at the troubled Fukushima plant. The Naval Disometer Center is sending 2,000 personal disometers (devices to monitor radiation exposure on individuals) to Japan. The U.S. military also contributed two fire trucks to Japanese authorities for use at the site.

Naval Activities⁹

The USS *Ronald Reagan* Carrier Strike Group, which includes the cruiser USS *Chancellorsville*, the destroyer USS *Preble*, and the combat support ship USS *Bridge*, was diverted from military exercises around Korea and is now conducting operations off the coast of east Honshu. The USS *Ronald Reagan*, with its 3,200 sailors and 2,480 aviators and air wing personnel and 85 aircraft, in addition to conducting flight operations, is expected to serve as a refueling platform for helicopters from the Japanese SDF, Japanese Coast Guard, and civilian authorities involved in rescue and recovery efforts. Seventeen members of the *Reagan's* crew were exposed to low-level radiation and were successfully decontaminated.¹⁰

Guided missile destroyers USS *Fitzgerald*, USS *John S. McCain*, USS *McCampbell*, and the USS *Curtis Wilbur* are also operating in close proximity to the USS *Ronald Reagan* Group, and the destroyer USS *Mustin* is at sea south of the disaster site. As of March 16, the group has already flown scores of sorties to deliver around 40 tons of humanitarian supplies to the affected areas.

The USS *Tortuga*, an amphibious dock landing ship that had been docked at the U.S. naval base in Sasebo, picked up over 90 SDF vehicles and nearly 300 SDF forces from Hokkaido, Japan's northernmost island, and delivered them to northern Honshu. The *Tortuga* also transported 5,000 bottles of water and 5,000 Meals Ready to Eat (MREs).

The USS *Essex*, an amphibious assault ship with the 31st Marine Expeditionary Unit aboard, and the USS *Harpers Ferry* and USS *Germantown* amphibious dock landing ships have arrived in the Sea of Japan and will conduct operations from Japan's west coast due to concerns about radiation levels closer to the Fukushima reactor site on the east coast. This position will allow access to undamaged roads to deliver relief supplies. One primary mission will be the re-opening of the severely damaged Sendai airport in order for it to serve as an operating base for disaster response in the surrounding area.

The USS *Blue Ridge*, the Seventh Fleet's command ship, arrived in the Okinawa vicinity and loaded personnel and additional supplies. It is expected in the disaster region within the next day.

Marine Corps Ground Activities

The III Marine Expeditionary Force is opening a command element and two forward refueling points at the Yamagata airport, located about 35 miles from Sendai.

Two U.S. Marine Corp Humanitarian Assistance Support (HAS) teams from the III Marine Expeditionary Force have arrived in the affected area, with two more HAS teams expected in the

⁹ Information reported on U.S. Navy Seventh Fleet Facebook page, March 16-17, 2011.

¹⁰ Cheryl Pellerin, "Ships, Aircraft Support Japan Relief Effort," *American Forces Press Service*, March 16, 2011.

region in the coming days. Landing in a heavily damaged Air SDF airfield, the Marines worked with ASDF personnel to unload relief supplies headed for a survivors' refuge center near Kesennuma, a coastal city north of Sendai particularly hard hit by the tsunami. The HAS teams will deliver water and other supplies, survey damaged infrastructure in need of repair, and monitor the spread of potential disease among the displaced population.

Air Activities¹¹

In the early hours immediately following the earthquake, Yokota Air Base was used to recover airline traffic and as an alternate airfield for planes that could not land at Tokyo's Narita Airport. Initial air operations from Naval Air Facility Atsugi and the USS *Ronald Reagan* were focused on identifying survivors in need of assistance as well as delivering water, blankets, and food. Additional helicopters conducted surveys of the at-sea debris fields, looking for survivors, and also conducted search and rescue missions along the coastline. Two U.S. Navy P-3 Orion aircraft also participated in survey operations.

U.S. Air Force and Marine helicopters and transport aircraft have been moved from Okinawa to U.S. military bases on Honshu to assist with operations. In addition, Carrier Airwing Five began relocating scores of tactical fixed-wing aircraft from Atsugi to Okinawa and Guam to provide for incoming aircraft to be used in relief operations. Delivery of generators and helicopters to Misawa is ongoing.

An RQ-4 Global Hawk, an unmanned, long-endurance aircraft that performs surveys of large geographic areas, was deployed from Anderson Air Force Base in Guam to assist with disaster relief. Using radar and optical surveillance, the aircraft will be able to assess damage to infrastructure throughout the affected area.¹²

Ground Activities¹³

The U.S. Army in Japan reportedly provided a 10-person team of translators, communications experts, and combat medics upon request of the Japanese Self-Defense Forces to help with disaster assessment efforts in the Sendai area. It was also reported that throughout Japan, similar efforts were undertaken at the request of local Japanese authorities by DOD personnel to aid and assist Japanese communities affected by the earthquake and tsunami. In addition, the U.S. Army Corps of Engineers Japan District provided an administrative system to help the U.S. Army Japan disaster assessment team with debris-removal efforts, and the Corps is also working on a plan to clear debris from airfields that are critical to logistic and humanitarian efforts.¹⁴

¹¹ Information in this section is taken from Fred W. Baker III, "U.S. Forces Provide Relief Aid to Japan," *American Forces Press Service*, March 13, 2011; Chris Carroll et al, "Relief Efforts Limited Days After the Earthquake," *American Forces Press Service*, March 13, 2011; and Phil Stewart, "More U.S. Ships Head to Japan, Radiation Risk Eyed," *Reuters.com*, March 14, 2011.

¹² "Air Force Officials Use Global Hawk to Support Japan Relief Efforts," *Air Force News Today*, March 16, 2011.

¹³ Chris Carroll et al, "Relief Efforts Limited Days After the Earthquake," *American Forces Press Service*, March 13, 2011 and Devon James, "Misawa Sailors Assist Clean Up at Local Fishing Port," United States Pacific Command, March 14, 2011.

¹⁴ Cheryl Pellerin, "Ships, Aircraft Support Japan Relief Effort," *American Forces Press Service*, March 16, 2011.

Background: U.S. Military Presence in Japan¹⁵

Current U.S. military presence in Japan consists of approximately 38,000 military personnel, 43,000 dependents, 5,000 DOD civilian employees, and 25,000 Japanese workers. U.S. forces are stationed in Japan pursuant to the U.S.-Japan Treaty of Mutual Cooperation and Security of 1960.

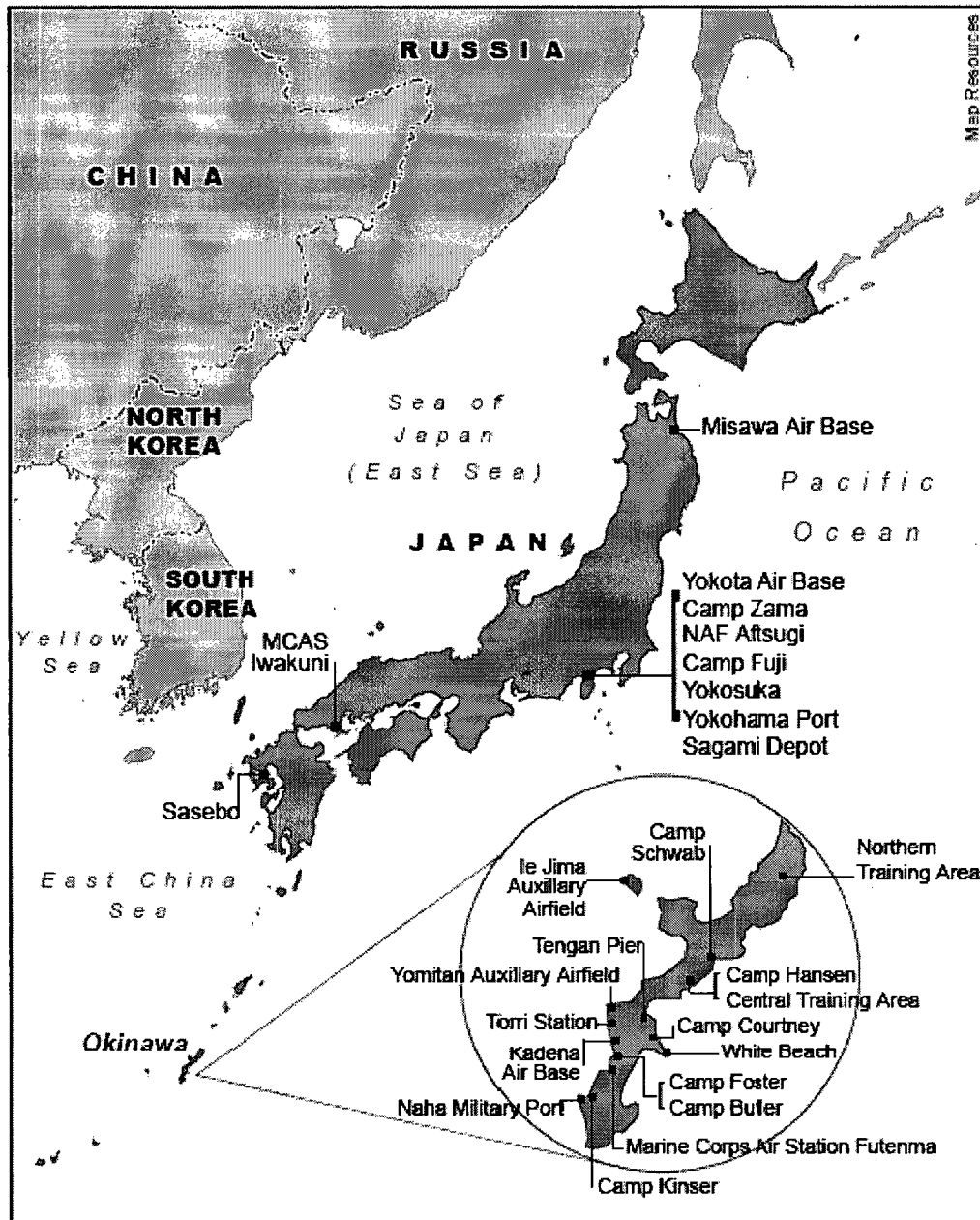
U.S. military strength in Japan is about 38,000 ashore and 11,000 afloat, and U.S. forces are dispersed among 85 facilities located on Honshu, Kyushu, and Okinawa.¹⁶ Total acreage of U.S. bases is approximately 77,000 acres. United States Forces Japan (USFJ) bases and facilities range in size from a several-thousand-acre training area to a single antenna site.

On mainland Japan, there are seven different bases/posts: Yokota and Misawa, representing the Air Force; Camp Zama, representing the Army; Iwakuni; the Marine Corps; and Yokosuka, Atsugi, and Sasebo, the Navy.

¹⁵ Information in this section is taken directly from the U.S. Forces Japan website, <http://www.usfj.mil/>, accessed on March 16, 2011.

¹⁶ See Figure 1.

Figure 1. U.S. Bases in Japan



Source: Adapted by CRS. (6/1/06)

U.S. Army, Japan (USARJ)¹⁷

U.S. Army, Japan (USARJ) consists of about 2,000 soldiers and is charged, during peacetime, with operating port facilities and a series of logistics installations throughout Honshu and Okinawa. USARJ participates actively with the Japan Ground Self Defense Force in bilateral training exercises and the development of bilateral plans. It commands and supports U.S. Army assigned units, attached units, and augmentation forces and employs these forces in support of the Commander. USARJ maintains defense facilities, war reserves, and operational project stocks. USARJ/9th Theater Support Command (TSC) is headquartered at Camp Zama.

U.S. Marine Corps

The III Marine Expeditionary Force (MEF), which is under the operational command of Marine Forces Pacific, consists of approximately 16,000 Marines, who are garrisoned primarily on Okinawa and southern Honshu. III MEF is headquartered at Camp Courtney, Okinawa.

U.S. Marine Corps Bases, Japan¹⁸

U.S. Marine Corps Bases, Japan, consists of approximately 9,000 military and civilian personnel and includes two air stations and nine camps/housing areas throughout Okinawa and mainland Japan. Its primary mission is to provide installation support and services, including force protection and quality of life, to forward-deployed Marine and Naval forces, other service members, civilians, retirees, family members, and others associated with U.S. Marine Corps Bases, Japan. HQs, U.S. Marine Corps Bases, Japan, is located at Camp Foster, Okinawa.

U.S. Navy¹⁹

Commander, Naval Forces, Japan, consisting of about 6,000 personnel, is responsible for maintaining and operating the port facilities and providing base and logistic support for those surface, subsurface, aviation, and amphibious elements of the U.S. Seventh Fleet that operate from Japan as part of the Forward Deployed Naval Forces (FDNF). U.S. Commander Navy Forces, Japan, participates with the Japan Maritime Self Defense Force in exercises and planning. CNFJ is headquartered at Yokosuka.

U.S. Seventh Fleet

U.S. Seventh Fleet, which is under the operation control of Commander, Pacific Fleet, has about 13,000 sailors, 18 ships, and 100 airplanes operating from Japan as part of the Forward Deployed Naval Forces.

¹⁷ Information in this section is taken directly from the U.S. Forces Japan website, <http://www.usfj.mil/>, accessed on March 16, 2011.

¹⁸ Ibid.

¹⁹ Ibid.

U.S. Air Force Japan (USAFJ)²⁰

The U.S. Air Forces, Japan/Fifth Air Force mission is to maintain the deterrent force posture of the United States and to conduct offensive and defensive air operations, should deterrence fail. Supporting that mission are approximately 13,000 military and civilian personnel located at units throughout Japan. In addition to the tactical air roles, USAFJ provides theater airlift and operational support with cargo airlift. USAFJ participates with the Japan Air Self Defense Force in bilateral training exercises and the development of bilateral plans. Fifth Air Force is headquartered at Yokota Air Base and is commanded by Commander, U.S. Forces Japan in a dual-hatted capacity.

Author Contact Information

Andrew Feickert
Specialist in Military Ground Forces
afeickert@crs.loc.gov, 7-7673

Emma Chanlett-Avery
Specialist in Asian Affairs
echanlettavery@crs.loc.gov, 7-7748

²⁰ Ibid.

From: Brenner, Eliot
To: Ross-Lee, MaryJane
Cc: Hayden, Elizabeth; Dyer, Jim; Morris, Scott; Glitter, Joseph; McGinty, Tim
Subject: Re: possible press release
Date: Friday, March 25, 2011 1:01:38 PM

I want bechtel to go first, then we can respond to questions. They will mention in their release that the design was our idea. Not sure we need a release. But I mway want to make someone available for tv. Also, think it would be good if the thing works before we rush in front of it.

Eliot
Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200

OC (b)(6)
Sent from my Blackberry

From: Ross-Lee, MaryJane
To: Brenner, Eliot
Cc: Hayden, Elizabeth; Dyer, Jim; Morris, Scott; Glitter, Joseph; McGinty, Tim
Sent: Fri Mar 25 12:57:36 2011
Subject: possible press release

Elliot, I was asked to pulse you on whether you wanted to consider issuing a press release when this Bechtel created pumping system actually arrived at the plant site.

thanks

From: Hayden, Elizabeth
To: "Allen, Michelle"
Subject: RE: Nice Chatting With You
Date: Friday, March 25, 2011 1:43:00 PM

Michelle,

Do you have a strategy in mind for doing this piece? If you could let me know how you are going to pitch this to the media—or send them a podcast or Youtube or press release, and when you would want to do something, it would help me know what to tell my people. I'm not clear on when this piece of equipment will be tested to make sure it works. We certainly wouldn't want to toot our horn only to find it doesn't work.

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: Allen, Michelle [mailto:mmallen@bechtel.com]
Sent: Thursday, March 24, 2011 6:05 PM
To: Brenner, Eliot; Hayden, Elizabeth
Subject: FW: Nice Chatting With You

Eliot and Liz:

Below is our contact information.

We look forward to working with you.

Francis M. Canavan
Media & Public Affairs Manager
Bechtel Corporation
Office (301) 228-8950

Mobile (b)(6)

Michelle Allen

Bechtel Corporate Communications

Media Relations

Office: 1-301-228-8946

AL/37

Cell:

(b)(6)

From: Wheelless, Charlene
Sent: Thursday, March 24, 2011 6:01 PM
To: Eliot.brenner@nrc.gov
Cc: elizabeth.hayden@nrc.gov; Allen, Michelle; Canavan, Francis
Subject: Nice Chatting With You

Eliot,

I've summarized below what I've been able to gather regarding how this came about, what we're doing and where things stand today. In light of this, I anticipate that there may be renewed interest so we both may start getting calls soon. Here is an update—albeit cryptic:

The CEO of INPO asked for our help with logistics last week in support of a team of INPO, NEI, and NRC folks who were assembled to help the Japanese with the event. As it turned out we quickly found out that the help they needed was broader and deeper than just logistics. The assembled team was trying to design a Temporary Fuel Pool Cooling system which could be loaded into a transport and quickly flown to Japan to aid in the fuel pool cooling event. We (Bechtel) had a team of engineers design the system based on simple specs from the NRC and develop a bill of material for all the components. Tapping into our global supply chain, we were able to source the materials quickly. The system is basically big diesel driven pumps and interconnecting piping. We offered pro bono services. To date, we know that the Government of Japan has accepted the system and will take ownership of the Train 1 material currently staged at Yokota Air Base in Japan. There is a training session set for Friday at the air base where the supplier, REL out of Australia, will demonstrate how to use their equipment. There are 8 people at this time in the session, representing Hitachi, Tepco, and Toden Kogyo. The US Government is arranging transportation of the Train 1 material from Yokota Air Base to the site. The NRC is waiting on a decision from GoJ and Tepco as to how they intend to use the equipment. This will have a direct bearing on when, if, and what we ship to Japan with regard to Train 2.

Michelle and Francis, please send to Eliot and Liz your contact information.

Thanks,

C

Charlene A. Wheelless

Principal Vice President, Corporate Affairs

Bechtel Corporation

301.228.8981 (office)

(b)(6) (mobile)

301.228.9490 (fax)

cwheeles@bechtel.com

Bechtel, Inc.



From: Kammerer, Annie
To: Burnell, Scott; Hayden, Elizabeth; Hiland, Patrick
Cc: Kauffman, John; Munson, Clifford; Ake, Jon; Bensi, Michelle
Subject: RE: NextEra Energy Questions
Date: Friday, March 25, 2011 2:08:15 PM

Whatever is needed to close it out.

From: Burnell, Scott
Sent: Friday, March 25, 2011 6:35 AM
To: Kammerer, Annie; Hayden, Elizabeth; Hiland, Patrick
Cc: Kauffman, John; Munson, Clifford; Ake, Jon; Bensi, Michelle
Subject: Re: NextEra Energy Questions

If no one objects, I can talk to Waldron at the OPA level of detail, which appears to be what he needs.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Kammerer, Annie
To: Hayden, Elizabeth; Hiland, Patrick
Cc: Burnell, Scott; Kauffman, John; Munson, Clifford; Ake, Jon; Bensi, Michelle
Sent: Thu Mar 24 22:25:35 2011
Subject: RE: NextEra Energy Questions

Here's a possible response. Perhaps Cliff or Jon can take a look.

- 1) We are trying to understand why our plants in low seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk. Can you help explain?

First, it should be clarified that the list of 27 plants is only provided to show that there is sufficient reason to move the project to the next phase of the generic issue program. These are not the only plants that will be reassessed. Due to the significant uncertainty in the data available, all plants in the central and eastern US will receive the generic letter and will be reassessed. Further, in light of the events in Japan, there is discussion within the NRC of including those in the west as well.

The GI-199 study considers both overall risk and also changes in risk. Both the approach to assessing seismic hazard and the data available to seismologists have improved significantly since the 1980. As a result, estimates of seismic hazard, although still low, have increased since that time. This is the result of a steady improvement in the understanding of seismic hazard over time. It is important to note that it is not the seismic activity, or the seismic hazard itself, that has increased; but rather it is the understanding of it that has changed. (Information on how the USGS seismic hazard maps are developed is available at the USGS website). The larger change in the risk

(in terms of core damage frequency) associated with some sites in the study directly reflects the change in assessed hazard.

3) My basic understanding - especially in the case of St. Lucie and Duane Arnold - is that highly conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

The screening process that was undertaken used data currently available to the NRC, principally from the IPEEE study conducted in the mid-90s. Licensees of nuclear plants in moderate to high seismicity areas tended to provide more detailed information regarding the seismic resistance of the structures, systems, and components than plants in low seismicity areas. Therefore when considering loads beyond the seismic design, NRC staff tended to have more detailed information to rely on for plants in moderate to high seismicity zones; and had to make conservative assumptions for plants in low seismicity regions.

Annie

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 5:11 PM
To: Hiland, Patrick
Cc: Burnell, Scott; Kammerer, Annie; Kauffman, John
Subject: FW: NextEra Energy Questions

Pat,

Can you help me out in answering t least the 2 highlighted questions from FPL? The licensee sounds like this is all a surprise to him.

Beth Hayden

From: Waldron, Michael [mailto:Michael.Waldron@fpl.com]
Sent: Thursday, March 24, 2011 4:03 PM
To: Hayden, Elizabeth
Subject: NextEra Energy Questions

Beth:

Good to speak with you. I will have our licensing folks look for the letter that apparently went out last fall. In the meantime, however, I'm trying to answer a number of questions pertaining to the article below.

1) We are trying to understand why our plants in low seismic areas (see below) would appear on the list of 27 plants that the NRC intends to review for seismic issues. While the story below notes that these plants have been identified based on "largest increase in seismic risk from a 1980s-era USGS study," the USGS maps show a low probability for seismic activity. I'm not aware of any major changes that would have increased seismic risk... can you help explain?

2) How does the Commission plan to conduct this evaluation? For instance, are you asking us for data, are you running models based on government geologic information? Is there something specific we should be preparing for if, in fact, you are going to do this review?

3) My basic understanding, especially in the case of St. Lucie and Duane Arnold, is that highly conservative values were input into your screening process for plants with low seismic probability, therefore moving plants like those previously mentioned up in the listing. Can you help me to understand this?

As you can imagine, this list has raised a number of questions for us since geologic maps tend to tell a different story. We're really just trying to figure this out at this point. If you could respond as quickly as possible, I would certainly appreciate it. Thanks again for your help.

Mike

US NRC to check seismic risk of 27 nuke units;
Washington (Platts)--23Mar2011/1033 am EDT/1433 GMT

The US Nuclear Regulatory Commission will conduct a seismic risk assessment of Entergy's Indian Point plant in New York next year, the first of 27 reviews of nuclear power units at 17 plants, agency spokeswoman Beth Hayden said Tuesday.

SepRately, NRC Chairman Gregory Jaczko "has personally committed to inspect Indian Point," located about 35 miles north of New York City, although "no date has not been determined" for the visit, Hayden said.

The NRC reported these nuclear units will receive the seismic review next year: Indian Point 2, Indian Point 3, Limerick 1, Limerick 2, Peach Bottom 2, Peach Bottom 3, Seabrook, Crystal River 3, Farley 1, Farley 2, North Anna 1, North Anna 2, Oconee 1, Oconee 2, Oconee 3, St. Lucie 1, St. Lucie 2, Sequoyah 1, Sequoyah 2, Summer, Watts Bar 1, Dresden 2, Dresden 3, Duane Arnold, Perry 1, River Bend and Wolf Creek.

The earthquake risk review is part of a new assessment NRC conducted based on 2008 revised US Survey data of seismic activity in the eastern and central US, said Scott Burnell, an NRC spokesman. The review pre-dated the earthquake and tsunami that wreaked havoc this month on the Fukushima nuclear stations.

Burnell categorized the findings as a "very broad bush indicator" that is not sufficient to determine the odds for earthquakes at a given nuclear reactor site.

The NRC is planning to send letters to plant operators late this year.

"The expectation is this analysis would show where plants could improve what already is an acceptable response to seismic events," Burnell said. The 27 units selected for review showed the largest increase in seismic risk from a 1980s-era USGS study, he said.

The Indian Point site was selected as the first to be inspected by NRC next year because the revised seismic data showed the largest increase in seismic risk increase from the previous study, Hayden said.

Senator Barbara Boxer, chairman of the Senate Environment and Public Works Committee and Senator Dianne Feinstein, both Democrats, on March 16 wrote to Jaczko asking that NRC inspect both the Diablo Canyon and San Onofre nuclear units, saying they are concerned that the plants "are near earthquake faults."

New York Governor Andrew Cuomo, a Democrat, urged NRC to shut Indian Point during the past decade when he was the state's attorney general. Cuomo raised concerns about the two-unit plant's proximity to the Ramapo fault and its discharge of heated water into the Hudson River.

"It is essential that the NRC move quickly to answer the significant and long-standing safety questions surrounding Indian Point," Cuomo said in a statement Tuesday.

Entergy said in a statement Tuesday: "All citizens of New York need to have access to the pertinent facts regarding Indian Point. We strongly believe that knowing the facts will answer the public's questions and will also clearly demonstrate that this facility is safe -- designed with a margin of safety beyond the strongest earthquake anticipated in the area. Accordingly, Entergy welcomes Governor Cuomo's call for a review of Indian Point by the federal Nuclear Regulatory Commission and stands ready to assist."



**Michael Waldron | Director
Nuclear Communications**

Office: 561.694.3618 | **Mobile:** (b)(6)
Email: Michael.Waldron@fpl.com

From: Hayden, Elizabeth
To: Vietti-Cook, Annette; Muessle, Mary
Cc: Sheron, Brian; Brenner, Eliot
Subject: FW: E-mail response
Date: Wednesday, April 06, 2011 1:05:00 PM
Attachments: Statement April 4, 2011.pdf
2011 04 06 12 53 14.pdf

I'm sending you this e-mail from Harold Denton in case you want to make additional distribution of the multi-national statement and recommendations re severe accidents that is being provided to IAEA.

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: Harold Denton [mailto:(b)(6)]
Sent: Wednesday, April 06, 2011 12:51 PM
To: Hayden, Elizabeth
Subject: Re: E-mail response

Roger Mattson found the email addresses for a number of NRCers and has sent them the same attachments as here in.

Feel free to distribute.
Harold

From: Hayden, Elizabeth

To: (b)(6)
Sent: Wednesday, April 06, 2011 10:20 AM
Subject: E-mail response

Hi Harold -- thanks for calling this morning. I look forward to seeing your e-mail on Chernobyl that I will make sure goes to the Commission.

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

AL/39

STATEMENT

NEVER AGAIN: An Essential Goal for Nuclear Safety

The people listed below are nuclear safety experts from various countries that for many years have been engaged in research and development, design, construction, operation, management and safety regulation of nuclear power plants (NPPs). We express here our deep concern about the future of nuclear power in view of the consequences of the earthquake and tsunami at the Fukushima-Daiichi NPP in Japan. We are confident that only nuclear power that avoids being a threat to the health and safety of the population and to the environment is acceptable to society. Although comprehensive analysis of this tragic event is not feasible at the moment due to lack of complete data on the events that occurred, we wish to voice our opinion about severe accidents at civilian nuclear power plants and suggest additional measures to avoid them in light of the experience so far gained at Fukushima. First, we review the improvements made in safety due to earlier severe accidents.

The accident at Three Mile Island (TMI) Unit 2 (USA, 1979) did not cause injuries of the plant personnel or the population. There was no significant radioactive contamination outside the plant. Even so, the accident caused a reduction of investments in new NPPs due to a decreased interest from private investors. Studies of the accident confirmed the robustness of safety principles employed in the design of that type of NPP. At the same time, the accident revealed significant weaknesses in the implementation of those principles, including design of instrumentation and controls, operating procedures and the realism of the analyses supporting them, personnel training, and feedback of operating experience. Lessons learned from the accident allowed improvements with regard to human factors (how people and NPPs relate), design-specific probabilistic safety assessments, emergency preparedness, and safety systems. This accident also led the nuclear industry to design new NPPs that include passive safety features not dependent on the availability of electrical or mechanical equipment.

The accident at Chernobyl Unit 4 (USSR, 1986) was the largest in history. The spread of the accident to the other reactors at the plant was prevented but cost the lives of thirty-one members of plant personnel and firemen. There was widespread radioactive contamination over large parts of Europe. Many thousand people had to be relocated from their homes near the plant. Regionally, the accident produced excess thyroid cancers and other negative effects on human health and had a large psychological impact on the public. The accident also had significant political resonance. The design of the reactor at Chernobyl was very different from the light-water reactors at TMI and Fukushima. Studies of the Chernobyl accident highlighted significant design deficiencies (core instability, inadequate design of control rods, unsatisfactory characteristics of confinement) as well as deficiencies in safety culture in the former Soviet Union. In harmony with international guidance and in compliance with upgraded national safety standards, significant modernization was achieved in NPPs in the former Soviet Union. Moreover, the IAEA International Nuclear Safety Advisory Group (INSAG) issued reports on the accident and developed Guidance on General Safety Principles and Safety Culture for improving NPP safety worldwide. The nuclear industry created the World Association of Nuclear Operators (WANO) for a continuous review and feedback of nuclear power plant operating experience.

On learning the lessons from these accidents, the approaches to safety regulation and NPP design were upgraded, and an international nuclear safety regime based on the Nuclear Safety Convention and other international accords was established. The fundamental principle of safety culture has become a daily routine.

International cooperation was strengthened to improve the fundamental requirements and criteria to ensure safety of nuclear power and to incorporate them into the design basis of NPPs of the next generations. The Nuclear Safety Convention also called for reviewing the safety of existing NPPs to identify and implement reasonably practical improvements.

The importance of nuclear education and training was acknowledged, which led to the establishment of the World Nuclear University (WNU) and the creation of regional nuclear education networks in different parts of the world.

Severe nuclear accidents seemed to have gone to history. Nevertheless, another one has happened. Why?

A detailed analysis based on more data is needed to give a full answer, but some preliminary observations deserve to be made now. On one hand, the Tohoku-Taiheiyou-Okai Earthquake on March 11, 2011 shows that nuclear power plants are capable of withstanding some catastrophic natural events better than many other manmade objects. On the other hand, it appears that, in the siting and design of the Fukushima-Daiichi nuclear plants, an unlikely combination of low-probability events (historic earthquake plus historic tsunami leading to loss of all electrical power) was not taken sufficiently into account.

In fact, complex combinations of initiating events unforeseen in plant designs resulted in all the severe accidents described above. In addition, these accidents took emergency responders outside the range of circumstances for which they were trained and equipped. Moreover, hindsight shows that relatively inexpensive improvements, detectable by more extensive analysis beforehand, may have avoided these accidents altogether.

These observations lead us to conclude that more can be done to prevent severe accidents and to limit their consequences should they nevertheless occur. We know that due to a natural tendency of human beings for complacency, the nuclear safety regime can erode; i.e., if we do not continuously pursue safety, we can lose safety. There are occasional signs that national and international safety assessments and peer review missions are becoming more focused on demonstrating that safety is satisfactory and in compliance with national and international standards than on finding and correcting deficiencies, be they in design, operation, or the standards themselves. Therefore, we need to reinforce our dedication, not only in words but also in actions towards a questioning attitude, thereby assuring continuous improvement in the safety of NPPs.

Thus, there is a need to continue to audit and improve the safety culture at all levels of nuclear power management and regulation, achieve due attention to detail, implement effective programs to identify, analyze and correct safety deficiencies, and effectively manage nuclear knowledge.

Special attention should be paid to the quality of personnel training for nuclear power. To achieve this goal, NPP vendor countries should establish centers to train specialists for nuclear technology in recipient countries. Top professionals involved in nuclear power generation should not only “know what” and “know how” but also “know why” in order to deliver difficult and critical decisions in time to deal with unforeseen circumstances. In

addition, regulatory organizations should improve the effectiveness of expert missions and inspections, and guarantee openness and honesty in reporting the findings of such inspections to the public. Routine inspections are important; however, even more important is the capability to recognize early indications of low probability incidents or circumstances.

In addition to further measures to prevent severe accidents, more must be done to limit the consequences of such accidents if they occur. It is important to finalize the in-depth safety assessments of severe accident vulnerabilities for each NPP plant design and to develop severe accident management provisions for all operating nuclear reactors. Measures for accident management should be supported with robust technical capabilities, backup equipment, and procedures for restoration of core heat removal before the onset of fuel melting. Plant staff should be well trained in flexible severe accident management.

Renewed attention should be given to general safety requirements for plants built to earlier safety standards in view of the considerable remaining operating time envisaged for many such plants. A more internationally harmonized approach in this area should be sought. In light of the common mode failure of redundant safety systems (electric power) caused by the tsunami at Fukushima, authorities should ask to what extent this failure and other common mode failure vulnerabilities in operating plants might be revealed by current technology.

The safety requirements for future NPPs should be refined to assure that their backup cooling systems are able to operate for a long enough time following a complete loss of on-site and off-site power. These future NPPs should be able to promptly restore or compensate for lost power. Passive systems and advanced technologies for system engineering, materials, information management and communications should be applied to new NPPs. New plants should be sited away from areas of extreme natural and manmade hazards. Risk assessments and risk governance should be used for optimization of plant design and operation but not substitute for deterministic safety justifications. The next-generation NPPs should ensure safety even if operating personnel are not able to provide immediate response in an emergency.

The responsibility and qualifications of government and corporate officials involved in nuclear safety-related decision-making should be reviewed and enhanced by national authorities where needed. National nuclear institutions in all countries, including nuclear safety regulators, should be accountable for their actions and transparent in nuclear safety communications so that they receive and deserve the trust of the public. It is necessary to ensure that national nuclear safety regulators in all countries are fully independent in their decision-making on nuclear safety and to assure their competence, resources and enforcement authorities. Insurance premiums for all NPP owners should be tied to plant safety performance.

The safety of nuclear power goes beyond national boundaries. Appropriate measures to further strengthen the international nuclear safety regime should be identified and implemented after proper discussions, whether it will be within the framework of the Nuclear Safety Convention, the IAEA, regional bodies like the EU or industry organizations like WANO. A critical question should be what measures would be most effective in further promoting a high level of nuclear safety worldwide. Would it be to create new international frameworks, for example in the shape of an international regulatory agency entrusted with

issuing binding international safety standards and performing compulsory inspections, or would it be to further develop and strengthen existing frameworks, emphasizing national responsibilities in combination with rigorous international peer reviews? It is to be expected that the international conference to be convened at the IAEA in Vienna in June of this year will provide a starting point for discussions of such measures.

Requirements for new countries wishing to start using nuclear power should be developed and incorporated into the international nuclear safety regime. Such countries must demonstrate their ability to uphold high international standards with regard to safety, security and non-proliferation over the lifetime of their nuclear power programs.

We hope that our recommendations will be accepted for consideration by national authorities and international organizations and that concerted measures will be developed. We are always ready to share our experience and expertise to assist in developing and implementing these and other recommendations to reach our common goal - to "Never Again" experience severe accidents in the future and, as defense in depth, to effectively respond to them should they nevertheless occur.

The following people assisted in the formulation of this Statement and concur in its issuance.

Adolf Birkhofer	Germany	Professor Emeritus, Technical University of Munich; former member and chair, INSAG; former chair, German Reactor Safety Commission; former chair, Committee on Safety of Nuclear Installations of OECD
Agustin Alonso	Spain	Former member, INSAG; former member, director and commissioner of Spanish Regulatory Institution; vice chair, Committee on Safety of Nuclear Installations of OECD
KunMo Chung	Republic of Korea	Former member, INSAG; former minister, Science & Technology, Republic of Korea; former president, Korean Academy of Science & Technology; former president, General Conference, IAEA; former vice chair, World Energy Council
Harold Denton	USA	Former director, office of nuclear reactor regulation, US Nuclear Regulatory Commission and President Carter's representative at TMI during the accident
Lars Högborg	Sweden	Former member, INSAG; former director general, Swedish Nuclear Power Inspectorate; former chair, steering committee, OECD Nuclear Energy Agency
Anil Kakodkar	India	Former member, INSAG, former chairman, Atomic Energy Commission of India
Georgy Kopchinsky	Ukraine	Former head, nuclear power and industry department, USSR Council of Ministers; former vice chair, Ukrainian nuclear regulatory authority
Jukka Laaksonen	Finland	Vice-chair, INSAG; director general, Finnish Radiation & Nuclear Safety Authority; chair, Western European Nuclear Regulatory Association (WENRA); former chair, NEA Committee on Nuclear Regulatory Activities (CNRA)
Salomon Levy	USA	Former member, INSAG; former design and manufacturing manager, General Electric Atomic Power Equipment Division; honorary member, ASME

Roger Mattson	USA	Former director of reactor systems safety division and leader, TMI Lessons Learned Task Force, US Nuclear Regulatory Commission; working group co-chair, INSAG-3
Victor Murogov	Russia	Professor, National Nuclear Research University (MEPHI); director, Russian Association Nuclear Science and Education; former director, Institute of Physics and Power Engineering (IPPE); former deputy director general for nuclear power, IAEA
Nikolai Ponomarev-Stepnoy	Russia	Member, Russian Academy of Science; former deputy director, Kurchatov Institute
Victor Sidorenko	Russia	Correspondent member of Russian Academy of Science; former member, INSAG; former deputy director, Kurchatov Institute; former deputy Chairman of the USSR nuclear regulatory authority; former deputy minister of nuclear power of the USSR and Russia
Nikolai Steinberg	Ukraine	Former member, IAEA Standing Advisory Group on Nuclear Energy; former chief engineer, Chernobyl NPP; former deputy chairman of USSR nuclear regulatory authority; former chairman of Ukrainian nuclear regulatory authority; former deputy minister of fuel & power of Ukraine
Pierre Tanguy	France	Former member, INSAG; former inspector general of nuclear safety, Electricité de France
Jurgis Vilemas	Lithuania	Member of Lithuanian Academy of Science; former director, Lithuanian Energy Institute

April 6, 2011

Director General
International Atomic Energy Agency
Vienna International Centre
A-1400 Vienna, Austria

Dear Mr. Amano:

I am writing to you on behalf of an ad hoc group of nuclear safety experts from various countries that for many years have been engaged in research and development, design, construction, operation, management and safety regulation of nuclear power plants. We have prepared a Statement, "NEVER AGAIN: An Essential Goal for Nuclear Safety" to express our deep concern about the future of nuclear power in view of the consequences of the earthquake and tsunami at the Fukushima-Daiichi NPP in Japan. A copy of the Statement is attached.

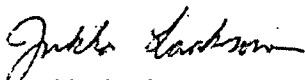
Although comprehensive analysis of this tragic event is not feasible at the moment due to lack of complete data on the events that occurred, we wish to voice our opinion about severe accidents at civilian nuclear power plants and suggest additional measures to avoid them in light of the experience so far gained at Fukushima. In our Statement, we review the many advances in nuclear safety that were realized after the accidents at Three Mile Island and Chernobyl. We hoped these advances would relegate severe nuclear accidents to history. Nevertheless, another one has happened. Why?

A detailed analysis based on more data is needed to give a full answer to this question, but some preliminary observations deserve to be made now. Accordingly, our Statement describes measures that should be considered, for both operating and new nuclear power plants, by the organizations that own and operate these plants and those that oversee their safety.

We hope that our recommendations will be accepted for consideration by national authorities, the nuclear industry, the conferees at the Chernobyl-25 Conference in Kiev this month, and the conferees at the IAEA Ministerial Conference in Vienna in June.

We are always ready to share our experience and expertise to assist in developing and implementing these and other recommendations to reach our common goal - to "Never Again" experience severe accidents and, as defense in depth, to effectively respond to them should they nevertheless occur.

Sincerely, on behalf of the ad hoc group,


Jukka Laaksonen

From: Hayden, Elizabeth
To: Burnell, Scott
Subject: RE: TMI History Question
Date: Wednesday, April 06, 2011 1:50:00 PM

According to the 1980 NRC Annual Report, "After the TMI accident, the Commission decided that power reactor licensing should be halted until substantial completion of the assessment of the accident and initiation of comprehensive improvements in the operation and regulation of nuclear plants. Policy guidance issued in November 1979 specified that no licensing board decisions authorizing issuance of a construction permit, limited work authorization or operating license should be issued except after further order of the Commission itself."

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

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

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 1:00 PM
To: 'rhenry@ap.org'
Subject: Re: TMI History Question

I don't, but we'll see what we can do on locating sam.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

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

From: Henry, Ray <rhenry@ap.org>
To: Burnell, Scott
Sent: Wed Apr 06 12:40:21 2011
Subject: RE: TMI History Question

Scott:

You wouldn't happen to have the contact info for retired NRC historian J. Scott Walker? He wrote the regulatory history of TMI -- I bet he knows. Talked to him earlier, but he was still with the commission then.

Cheers,
Ray Henry

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

From: Burnell, Scott [<mailto:Scott.Burnell@nrc.gov>]
Sent: Wednesday, April 06, 2011 12:26 PM
To: Henry, Ray
Subject: Re: TMI History Question

I can confirm the request to suspend rulemaking has been received; no estimate on a reply. Checking on TMI question.

AL/40

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

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

From: Henry, Ray <rhenry@ap.org>

To: Burnell, Scott

Sent: Wed Apr 06 12:18:52 2011

Subject: TMI History Question

Scott:

For a deadline story today, I'm trying to determine whether the NRC halted or froze the licensing of new reactors or power plants after the 1979 accident at Three Mile Island. NRC publications from the time seem to suggest this was the case, however I wanted to sanity check that with your office.

Cheers,
Ray Henry

Ray Henry | The Associated Press | Office: 404-522-8971 | Cell:

(b)(6)

| rhenry@ap.org

The information contained in this communication is intended for the use of the designated recipients named above. If the reader of this communication is not the intended recipient, you are hereby notified that you have received this communication in error, and that any review, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify The Associated Press immediately by telephone at +1-212-621-1898 and delete this e-mail. Thank you.

[IP_US_DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: [Burnell, Scott](#)
To: [Henry, Ray](#)
Cc: [Hayden, Elizabeth](#)
Subject: RE: TMI History Question
Date: Wednesday, April 06, 2011 2:28:43 PM

Ray;

According to the staff, a "licensing pause" was announced by then-Chairman Hendrie to Congress on November 5, 1979 (following the Kemeny Commission report). The "licensing pause" ended in February 1980 with regards to fuel loading and low-power testing. The staff notes that by June 1980, the Commission had approved fuel load and low-power testing in conjunction with 3 operating licenses (Sequoyah, Salem and North Anna). By December 1980, the Commission had issued full-power operating licenses for Salem and North Anna.

Scott

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

From: Henry, Ray [<mailto:rherry@ap.org>]
Sent: Wednesday, April 06, 2011 12:40 PM
To: Burnell, Scott
Subject: RE: TMI History Question

Scott:

You wouldn't happen to have the contact info for retired NRC historian J. Scott Walker? He wrote the regulatory history of TMI -- I bet he knows. Talked to him earlier, but he was still with the commission then.

Cheers,
Ray Henry

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

From: Burnell, Scott [<mailto:Scott.Burnell@nrc.gov>]
Sent: Wednesday, April 06, 2011 12:26 PM
To: Henry, Ray
Subject: Re: TMI History Question

I can confirm the request to suspend rulemaking has been received; no estimate on a reply. Checking on TMI question.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

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

From: Henry, Ray <rherry@ap.org>
To: Burnell, Scott
Sent: Wed Apr 06 12:18:52 2011
Subject: TMI History Question

Scott:

For a deadline story today, I'm trying to determine whether the NRC halted or froze the licensing of new reactors or power plants after the 1979 accident at Three Mile Island. NRC publications from the time seem to suggest this was the case, however I wanted to sanity check that with your office.

AL/41

Cheers,
Ray Henry

Ray Henry | The Associated Press | Office: 404-522-8971 | Cell:

(b)(6)

rhenry@ap.org

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[IP_US_DISC]

msk dccc60c6d2c3a6438f0cf467d9a4938

From: Burnell, Scott
To: Wald, Matthew
Cc: Medina, Veronika; Hayden, Elizabeth
Subject: RE: Media -Did NRC tell Markey that Unit 2 core has melted through the reactor vessel?
Date: Wednesday, April 06, 2011 2:35:19 PM

Hope to have something for you soon, thanks for your patience.

From: Wald, Matthew [mailto:mattwald@nytimes.com]
Sent: Wednesday, April 06, 2011 2:35 PM
To: Burnell, Scott
Cc: Medina, Veronika; Hayden, Elizabeth
Subject: RE: Media -Did NRC tell Markey that Unit 2 core has melted through the reactor vessel?

Scott, the committee says the archived webcast won't be posted til later, possibly tomorrow.
Can I simplify the question in a way that is easier to answer?
Does the NRC think that the core of unit 2 has melted through the vessel?
Hoping to hear from you soon.
Thanks. --- Matt

Matthew L. Wald
Washington Bureau
The New York Times
1627 Eye St NW, Suite 700
Washington, DC 20006
202-862-0363
cell: (b)(6)
fax: 202-318-0057

<http://www.nytimes.com/info/nuclear-energy/>
twitter: mattwaldnyt

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 10:40 AM
To: Wald, Matthew
Cc: Medina, Veronika; Hayden, Elizabeth
Subject: RE: Media -Did NRC tell Markey that Unit 2 core has melted through the reactor vessel?

Hi Matt;

Please refer to the hearing transcript for Marty Virgilio's response to that statement.
Thanks.

Scott

From: Wald, Matthew [mailto:mattwald@nytimes.com]
Sent: Wednesday, April 06, 2011 11:12 AM
To: OPA Resource
Subject: Did NRC tell Markey that Unit 2 core has melted through the reactor vessel?

A442

Reuters is reporting that Rep. Markey says NRC told him that the core of Fuku 2 has melted through the reactor vessel.

Can you call me on my cell? (b)(6). Thanks.

--- Matt

Matthew L. Wald
The New York Times
Washington Bureau
1627 Eye Street NW
Washington, DC 20006

202-862-0363

cell (b)(6)

fax: 202-318-0057

<http://www.nytimes.com/info/nuclear-energy/>

twitter: mattwaldnyt

From: Sheron, Brian
To: Hayden, Elizabeth; Vietti-Cook, Annette; Muessle, Mary
Cc: Brenner, Eliot
Subject: RE: E-mail response
Date: Wednesday, April 06, 2011 3:41:03 PM

Thx, I did.

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 1:05 PM
To: Vietti-Cook, Annette; Muessle, Mary
Cc: Sheron, Brian; Brenner, Eliot
Subject: FW: E-mail response

I'm sending you this e-mail from Harold Denton in case you want to make additional distribution of the multi-national statement and recommendations re severe accidents that is being provided to IAEA.

*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: Harold Denton [mailto: (b)(6)]
Sent: Wednesday, April 06, 2011 12:51 PM
To: Hayden, Elizabeth
Subject: Re: E-mail response

Roger Mattson found the email addresses for a number of NRCers and has sent them the same attachments as here in.

Feel free to distribute.
Harold

From: Hayden, Elizabeth

To: (b)(6)
Sent: Wednesday, April 06, 2011 10:20 AM
Subject: E-mail response

Hi Harold -- thanks for calling this morning. I look forward to seeing your e-mail on Chernobyl that I will make sure goes to the Commission.

*Beth Hayden
Senior Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment
301-415-8202*

AL/43

elizabeth.hayden@nrc.gov

From: Brenner, Eliot
To: (b)(6); "ChangBE@state.gov"; "Damien.Lavera@nnsa.doe.gov";
"stephanie.mueller@hq.doe.gov"
Cc: "McKelloggKF@state.gov"; "ParadisoDT@state.gov"; (b)(6); Hayden, Elizabeth;
Burnell, Scott
Subject: Re: U.S. Sees Array of New Threats at Japan's Nuclear Plant
Date: Wednesday, April 06, 2011 4:06:06 PM

Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200
C (b)(6)
Sent from my Blackberry

From: Hayden, Caitlin <(b)(6)>
To: 'Chang, Benjamin' <ChangBE@state.gov>; damien.lavera@nnsa.doe.gov
<damien.lavera@nnsa.doe.gov>; stephanie.mueller@hq.doe.gov <stephanie.mueller@hq.doe.gov>;
Brenner, Eliot
Cc: McKellogg, Kelly E <McKelloggKE@state.gov>; Paradiso, Darragh T <ParadisoDT@state.gov>;
Jensen, Robert R. <(b)(6)>
Sent: Wed Apr 06 09:51:27 2011
Subject: RE: U.S. Sees Array of New Threats at Japan's Nuclear Plant

Thanks, Ben! Here at NSS, we're also very keen to see how NRC will handle. It's important that this be put in context and not lead to alarm. The truth is that this is just one of many internal assessments provided to the Japanese (a two-week-old assessment at that). We are working as closely as possible with our Japanese partners, and as the NRC Chairman has said, we're seeing the Japanese Government take many of the steps that we would be recommending if this were to happen in the U.S. This remains a fluid and difficult situation, but we're continuing to work as closely as possible. Thanks!
-Caitlin

From: Chang, Benjamin [mailto:ChangBE@state.gov]
Sent: Wednesday, April 06, 2011 9:18 AM
To: damien.lavera@nnsa.doe.gov; stephanie.mueller@hq.doe.gov; Eliot Brenner
Cc: McKellogg, Kelly E; Paradiso, Darragh T; Jensen, Robert R.; Hayden, Caitlin
Subject: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant
Importance: High

Hello DOE/NRC/NNSA friends, greetings from State/PA! I am settling into my new role over here in the front office with Mike H. and the team. Wanted to drop you a line regarding our favorite front page NYT piece today – below. CNN reached out to Embassy overnight; they're kicking it to D.C.; we're inclined to refer inquiries to you. My two cents is not to comment on confidential report leaks (or leaks of any kind), but am sure you've been chewing on this one already for a minute. Guidance/thoughts? Other than two outside experts (one "involved" in the report?) and Notre Dame (sorry about that loss last night), did Glanz or Broad or their supporting cast reach out to you for comment? Copying our EAP press honchos and NSS friends, too.

Thanks,
Ben.

April 5, 2011

AL 144

U.S. Sees Array of New Threats at Japan's Nuclear Plant

By **JAMES GLANZ** and **WILLIAM J. BROAD**

United States government engineers sent to help with the crisis in Japan are warning that the troubled nuclear plant there is facing a wide array of fresh threats that could persist indefinitely, and that in some cases are expected to increase as a result of the very measures being taken to keep the plant stable, according to a confidential assessment prepared by the Nuclear Regulatory Commission.

Among the new threats that were cited in the assessment, dated March 26, are the mounting stresses placed on the containment structures as they fill with radioactive cooling water, making them more vulnerable to rupture in one of the aftershocks rattling the site after the earthquake and tsunami of March 11. The document also cites the possibility of explosions inside the containment structures due to the release of hydrogen and oxygen from seawater pumped into the reactors, and offers new details on how semimolten fuel rods and salt buildup are impeding the flow of fresh water meant to cool the nuclear cores.

In recent days, workers have grappled with several side effects of the emergency measures taken to keep nuclear fuel at the plant from overheating, including leaks of radioactive water at the site and radiation burns to workers who step into the water. The assessment, as well as interviews with officials familiar with it, points to a new panoply of complex challenges that water creates for the safety of workers and the recovery and long-term stability of the reactors.

While the assessment does not speculate on the likelihood of new explosions or damage from an aftershock, either could lead to a breach of the containment structures in one or more of the crippled reactors, the last barriers that prevent a much more serious release of radiation from the nuclear core. If the fuel continues to heat and melt because of ineffective cooling, some nuclear experts say, that could also leave a radioactive mass that could stay molten for an extended period.

The document, which was obtained by The New York Times, provides a more detailed technical assessment than Japanese officials have provided of the conundrum facing the Japanese as they struggle to prevent more fuel melting at the Fukushima Daiichi plant. But it appears to rely largely on data shared with American experts by the Japanese.

Among other problems, the document raises new questions about whether pouring water on nuclear fuel in the absence of functioning cooling systems can be sustained indefinitely. Experts have said the Japanese need to continue to keep the fuel cool for many months until the plant can be stabilized, but there is growing awareness that the risks of pumping water on the fuel present a whole new category of challenges that the nuclear industry is only beginning to comprehend.

The document also suggests that fragments or particles of nuclear fuel from spent fuel pools above the reactors were blown "up to one mile from the units," and that pieces of highly radioactive material fell between two units and had to be "bulldozed over," presumably to protect workers at the site. The ejection of nuclear material, which may have occurred during one of the earlier hydrogen explosions, may indicate more extensive damage to the extremely radioactive pools than previously disclosed.

David A. Lochbaum, a nuclear engineer who worked on the kinds of General Electric reactors used in Japan and now directs the nuclear safety project at the Union of Concerned Scientists, said that the welter of problems revealed in the document at three separate reactors made a successful outcome even more uncertain.

"I thought they were, not out of the woods, but at least at the edge of the woods," said Mr. Lochbaum,

who was not involved in preparing the document. "This paints a very different picture, and suggests that things are a lot worse. They could still have more damage in a big way if some of these things don't work out for them."

The steps recommended by the nuclear commission include injecting nitrogen, an inert gas, into the containment structures in an attempt to purge them of hydrogen and oxygen, which could combine to produce explosions. The document also recommends that engineers continue adding boron to cooling water to help prevent the cores from restarting the nuclear reaction, a process known as criticality.

Even so, the engineers who prepared the document do not believe that a resumption of criticality is an immediate likelihood, Neil Wilmshurst, vice president of the nuclear sector at the Electric Power Research Institute, said when contacted about the document. "I have seen no data to suggest that there is criticality ongoing," said Mr. Wilmshurst, who was involved in the assessment.

The document was prepared for the commission's Reactor Safety Team, which is assisting the Japanese government and the Tokyo Electric Power Company, which owns the plant. It says it is based on the "most recent available data" from numerous Japanese and American organizations, including the electric power company, the Japan Atomic Industrial Forum, the United States Department of Energy, General Electric and the Electric Power Research Institute, an industry group.

The document contains detailed assessments of each of the plant's six reactors along with recommendations for action. Nuclear experts familiar with the assessment said that it was regularly updated but that over all, the March 26 version closely reflected current thinking.

The assessment provides graphic new detail on the conditions of the damaged cores in reactors 1, 2 and 3. Because slumping fuel and salt from seawater that had been used as a coolant is probably blocking circulation pathways, the water flow in No. 1 "is severely restricted and likely blocked." Inside the core itself, "there is likely no water level," the assessment says, adding that as a result, "it is difficult to determine how much cooling is getting to the fuel." Similar problems exist in No. 2 and No. 3, although the blockage is probably less severe, the assessment says.

Some of the salt may have been washed away in the past week with the switch from seawater to fresh water cooling, nuclear experts said.

A rise in the water level of the containment structures has often been depicted as a possible way to immerse and cool the fuel. The assessment, however, warns that "when flooding containment, consider the implications of water weight on seismic capability of containment."

Experts in nuclear plant design say that this warning refers to the enormous stress put on the containment structures by the rising water. The more water in the structures, the more easily a large aftershock could rupture one of them.

Margaret Harding, a former reactor designer for General Electric, warned of aftershocks and said, "If I were in the Japanese's shoes, I'd be very reluctant to have tons and tons of water sitting in a containment whose structural integrity hasn't been checked since the earthquake."

The N.R.C. document also expressed concern about the potential for a "hazardous atmosphere" in the concrete-and-steel containment structures because of the release of hydrogen and oxygen from the seawater in a highly radioactive environment.

Hydrogen explosions in the first few days of the disaster heavily damaged several reactor buildings and in one case may have damaged a containment structure. That hydrogen was produced by a mechanism involving the metal cladding of the nuclear fuel. The document urged that Japanese operators restore the ability to purge the structures of these gases and fill them with stable nitrogen gas, a capability lost after the quake and tsunami.

Nuclear experts say that radiation from the core of a reactor can split water molecules in two, releasing

hydrogen. Mr. Wilmshurst said that since the March 26 document, engineers had calculated that the amount of hydrogen produced would be small. But Jay A. LaVerne, a physicist at Notre Dame, said that at least near the fuel rods, some hydrogen would in fact be produced, and could react with oxygen. "If so," Mr. LaVerne said in an interview, "you have an explosive mixture being formed near the fuel rods."

Nuclear engineers have warned in recent days that the pools outside the containment buildings that hold spent fuel rods could pose an even greater danger than the melted reactor cores. The pools, which sit atop the reactor buildings and are meant to keep spent fuel submerged in water, have lost their cooling systems.

The N.R.C. report suggests that the fuel pool of the No. 4 reactor suffered a hydrogen explosion early in the Japanese crisis and could have shed much radioactive material into the environment, what it calls "a major source term release."

Experts worry about the fuel pools because explosions have torn away their roofs and exposed their radioactive contents. By contrast, reactors have strong containment vessels that stand a better chance of bottling up radiation from a meltdown of the fuel in the reactor core.

"Even the best juggler in the world can get too many balls up in the air," Mr. Lochbaum said of the multiplicity of problems at the plant. "They've got a lot of nasty things to negotiate in the future, and one missed step could make the situation much, much worse."

Henry Fountain contributed reporting from New York, and Matthew L. Wald from Washington.

SBU

This email is UNCLASSIFIED.

From: Batkin, Joshua
To: (b)(6); (b)(6); Doane, Margaret; Hayden, Elizabeth;
"Dan.Leistikow@hq.doe.gov"; Brenner, Eliot
Cc: Burnell, Scott; Harrington, Holly; Coggins, Angela
Subject: Re: Nyt article
Date: Wednesday, April 06, 2011 5:05:20 PM

Based on my conversation with the Chairman, this is not something the NRC will be providing publicly at this point because of the negative impact it could have on our on-going efforts to help the Japanese.

Joshua C. Batkin
Chief of Staff
Chairman Gregory B. Jaczko
(301) 415-1820

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

From: Hayden, Caitlin <(b)(6)>
To: Shapiro, Nicholas S. <(b)(6)>; Doane, Margaret; Hayden, Elizabeth;
'Dan.Leistikow@hq.doe.gov' <Dan.Leistikow@hq.doe.gov>; Brenner, Eliot
Cc: Burnell, Scott; Harrington, Holly; Batkin, Joshua
Sent: Wed Apr 06 11:27:34 2011
Subject: RE: Nyt article

(b)(5)

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

From: Shapiro, Nicholas S.
Sent: Wednesday, April 06, 2011 11:19 AM
To: Doane, Margaret; Hayden, Elizabeth; 'Dan.Leistikow@hq.doe.gov'; Brenner, Eliot; Hayden, Caitlin
Cc: Burnell, Scott; Harrington, Holly; Batkin, Joshua
Subject: RE: Nyt article

Keeping CHayden on here

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

From: Doane, Margaret [<mailto:Margaret.Doane@nrc.gov>]
Sent: Wednesday, April 06, 2011 11:18 AM
To: Hayden, Elizabeth; 'Dan.Leistikow@hq.doe.gov'; Shapiro, Nicholas S.; Brenner, Eliot
Cc: Burnell, Scott; Harrington, Holly; Batkin, Joshua
Subject: Re: Nyt article

If they are based on information provided to you by Japan, the question of release is not easy.

Sent from an NRC Blackberry
Margaret Doane

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

From: Hayden, Elizabeth
To: 'Leistikow, Dan' <Dan.Leistikow@hq.doe.gov>; (b)(6)
(b)(6); Brenner, Eliot
Cc: Burnell, Scott; Harrington, Holly; Doane, Margaret; Batkin, Joshua
Sent: Wed Apr 06 09:55:43 2011
Subject: RE: Nyt article

(b)(5)

from FOIA. Our policy has been to provide these kind of non-exempt documents to the media when requested. We're reviewing our options with the DEDO shortly.

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

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

From: Leistikow, Dan [mailto:Dan.Lestikow@hq.doe.gov]
Sent: Wednesday, April 06, 2011 9:48 AM
To: (b)(6) Brenner, Eliot
Cc: Hayden, Elizabeth; Burnell, Scott; Harrington, Holly; Doane, Margaret; Batkin, Joshua
Subject: Re: Nyt article

I've flagged this for our folks here. Have no idea where leak came from but it is regardless an opportunity to remind folks to ensure that we are all careful about documents like this.

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

From: Shapiro, Nicholas S. <(b)(6)>
To: 'Eliot.Brenner@nrc.gov' <Eliot.Brenner@nrc.gov>; Leistikow, Dan
Cc: 'Elizabeth.Hayden@nrc.gov' <Elizabeth.Hayden@nrc.gov>; 'Scott.Burnell@nrc.gov' <Scott.Burnell@nrc.gov>; 'Holly.Harrington@nrc.gov' <Holly.Harrington@nrc.gov>; 'Margaret.Doane@nrc.gov' <Margaret.Doane@nrc.gov>; 'Joshua.Batkin@nrc.gov' <Joshua.Batkin@nrc.gov>
Sent: Wed Apr 06 06:58:09 2011
Subject: Re: Nyt article

Adding doe

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

From: Brenner, Eliot <Eliot.Brenner@nrc.gov>
To: Shapiro, Nicholas S.
Cc: Hayden, Elizabeth <Elizabeth.Hayden@nrc.gov>; Burnell, Scott <Scott.Burnell@nrc.gov>; Harrington, Holly <Holly.Harrington@nrc.gov>; Doane, Margaret <Margaret.Doane@nrc.gov>; Batkin, Joshua <Joshua.Batkin@nrc.gov>
Sent: Wed Apr 06 03:10:07 2011
Subject: Nyt article

Nick: I am enroute back from vienna and don't have immediately handy the email of our counterpart at DOE so perhaps you can share this with him

Our chairman is sending/wants to send word to our reactor safety team to be exceptionally careful with whom they share these assessments. Some suspicion on our end it may have gotten out via industry. When you guys asked about this late last week I now know why it did not ring a bell -- chairman said existence of these assessments was not widely shared internally.

The folks copied here will be working on or have developed a response and will keep you on the loop. I'll be incommunicado airborne til about 3pm eastern.

Eliot
Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission

Protecting People and the Environment

301 415 8200

C: (b)(6)

Sent from my Blackberry

From: Brenner, Eliot
To: Hayden, Elizabeth
Subject: Fw: Core melting through RPV at Fukushima
Date: Wednesday, April 06, 2011 5:09:32 PM

Fyi. I don't know th answer.

Eliot Brenner

Director, Office of Public Affairs

US Nuclear Regulatory Commission

Protecting People and the Environment

301 415 8200

C (b)(6)

Sent from my Blackberry

From: Lobsenz, George <George.Lobsenz@ihs.com>
To: Brenner, Eliot
Sent: Wed Apr 06 16:42:46 2011
Subject: Core melting through RPV at Fukushima

Hi Eliot--I can't get any our your busy press office folks to respond to Markey's statement about "probable" core melt through reactor vessel at Fukushima Unit 2, though I see some reports that NRC's Virgilio denied it this morning after the hearing.

Is NRC denying core melt through reactor vessel?

thanks, George

AL/46

From: Hayden, Caitlin
To: Hayden, Elizabeth
Subject: RE: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant
Date: Wednesday, April 06, 2011 6:17:47 PM

Absolutely! Appreciate the help....

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

From: Hayden, Elizabeth [<mailto:Elizabeth.Hayden@nrc.gov>]
Sent: Wednesday, April 06, 2011 6:17 PM
To: Hayden, Caitlin
Subject: RE: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant

OK. Sorry for the duplication--but I guess it's better to get this message 2 times than not at all.

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

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

From: Hayden, Caitlin [<mailto:> (b)(6)]
Sent: Wednesday, April 06, 2011 6:15 PM
To: Hayden, Elizabeth; Brenner, Eliot
Cc: Shapiro, Nicholas S.; Jensen, Robert R.; Russel, Daniel R.; Burnell, Scott
Subject: RE: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant

Thank you, Beth! We received this earlier in the day and shared with others for situational awareness. -
CH

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

From: Hayden, Elizabeth [<mailto:Elizabeth.Hayden@nrc.gov>]
Sent: Wednesday, April 06, 2011 6:15 PM
To: Hayden, Caitlin; Brenner, Eliot
Cc: Shapiro, Nicholas S.; Jensen, Robert R.; Russel, Daniel R.; Burnell, Scott
Subject: RE: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant

Caitlin,

This is the statement we have developed in response to this story:

The March 26 document represented an interim snapshot of what NRC staff and other experts considered as possible conditions inside the damaged units at Fukushima-Daiichi; the document does not reflect our understanding of the current situation. Based on those possible conditions, the NRC staff's recommendations should be considered prudent measures; they are not offered as the only possible solutions. We shared those recommendations with the Japanese operator and regulator of the plants. We understand they are pursuing an alternative set of strategies to control the plants and ensure the safety of the people working at the plants and living nearby. We are working with our counterparts to consider these strategies and explore additional steps that could enhance safety.

Beth Hayden
Senior Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission

AL/47

--- Protecting People and the Environment
301-415-8202
elizabeth.hayden@nrc.gov

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

From: Hayden, Caitlin [mailto: (b)(6)]
Sent: Wednesday, April 06, 2011 5:29 PM
To: Brenner, Eliot
Cc: Shapiro, Nicholas S.; Jensen, Robert R.; Russel, Daniel R.; Burnell, Scott; Hayden, Elizabeth
Subject: RE: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant

Thanks for all the info today. -CH

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

From: Brenner, Eliot [mailto:Eliot.Brenner@nrc.gov]
Sent: Wednesday, April 06, 2011 4:06 PM
To: Hayden, Caitlin
Cc: Shapiro, Nicholas S.; Jensen, Robert R.; Russel, Daniel R.; Burnell, Scott; Hayden, Elizabeth
Subject: Re: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant

Our team is working on it. I am just getting caught up.

Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200
C: (b)(6)
Sent from my Blackberry

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

From: Hayden, Caitlin < (b)(6) >
To: Brenner, Eliot
Cc: Shapiro, Nicholas S. < (b)(6) >; Jensen, Robert R. < (b)(6) >; Russel, Daniel R. < (b)(6) >
Sent: Wed Apr 06 08:55:09 2011
Subject: FW: NYT: U.S. Sees Array of New Threats at Japan's Nuclear Plant

Hey, Eliot. I'm sure you've seen the rather unhelpful story below. Understanding that NRC is an independent body and will develop its own press language, we're interested in making sure we're somewhat consistent in our responses. Do you have press guidance worked up to address this yet?
Thanks! -Caitlin

April 5, 2011

U.S. Sees Array of New Threats at Japan's Nuclear Plant
By JAMES GLANZ and WILLIAM J. BROAD

United States government engineers sent to help with the crisis in Japan are warning that the troubled nuclear plant there is facing a wide array of fresh threats that could persist indefinitely, and that in some cases are expected to increase as a result of the very measures being taken to keep the plant stable, according to a confidential assessment prepared by the Nuclear Regulatory Commission.

Among the new threats that were cited in the assessment, dated March 26, are the mounting stresses placed on the containment structures as they fill with radioactive cooling water, making them more vulnerable to rupture in one of the aftershocks rattling the site after the earthquake and tsunami of March 11. The document also cites the possibility of explosions inside the containment structures due to the release of hydrogen and oxygen from seawater pumped into the reactors, and offers new details on

From: Hayden, Elizabeth
To: Burnell, Scott
Cc: Brenner, Eliot
Subject: RE: Scott, I know at some point
Date: Thursday, April 07, 2011 8:26:00 AM

Be careful what you put in e-mails—they are likely to be FOIAed! I agree.

Beth

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 7:00 PM
To: Brenner, Eliot; Hayden, Elizabeth
Subject: Fw: Scott, I know at some point

I am SO ready to tell him to consult his vaunted 3/26 document for mention of "creep rupture."

Feh.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Wald, Matthew <mattwald@nytimes.com>
To: Burnell, Scott
Cc: Brenner, Eliot
Sent: Wed Apr 06 18:53:14 2011
Subject: RE: Scott, I know at some point

Scott,

My editors are asking whether we're entering the sequence described in section 12-5 of this document, where the core starts getting out of the vessel, in a "creep rupture," ablates the opening, and we end up with a core/concrete interaction at the bottom of the drywell.

Is that what you're hinting at here?

---- Matt

Matthew L. Wald
Washington Bureau
The New York Times
1627 Eye St NW, Suite 700
Washington, DC 20006
202-862-0363
cell: (b)(6)
fax: 202-318-0057

<http://www.nytimes.com/info/nuclear-energy/>
twitter: mattwaldnyt

AL/48

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 4:42 PM
To: Wald, Matthew
Cc: Brenner, Eliot
Subject: RE: Scott, I know at some point

I don't have such a document available. My apologies.

From: Wald, Matthew [mailto:mattwald@nytimes.com]
Sent: Wednesday, April 06, 2011 5:39 PM
To: Burnell, Scott
Subject: Scott, I know at some point

I saw a document that gave radiation levels within the Fukushima Daiichi plant, but now I can't find it. Is there some publicly-available listing? I'm interested in comparing the d/w reading for unit 2 vs units 1 & 3, and comparing it to levels last week.

Thanks.

--- Matt

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From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 3:25 PM
To: Wald, Matthew
Cc: Brenner, Eliot; Hayden, Elizabeth
Subject: RE: This morning's hearing

Hi Matt;

No, it does not. Pathways into the drywell could include existing penetrations of the bottom head, or leakage from recirculation pumps.

Scott

From: Wald, Matthew [mailto:mattwald@nytimes.com]
Sent: Wednesday, April 06, 2011 4:02 PM
To: Burnell, Scott; OPA Resource
Cc: Hayden, Elizabeth; Brenner, Eliot

Subject: RE: This morning's hearing

Scott, does "possible leakage paths" mean the core melted through the vessel bottom?

Matthew L. Wald
Washington Bureau
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1627 Eye St NW, Suite 700
Washington, DC 20006
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<http://www.nytimes.com/info/nuclear-energy/>
twitter: mattwaldnyt

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 2:46 PM
To: Burnell, Scott
Cc: Hayden, Elizabeth; Brenner, Eliot
Subject: RE: This morning's hearing

Good Afternoon;

Regarding questions following the House hearing this morning, the NRC has the following statement:

There continues to be a great deal we don't know regarding the situation at Fukushima. One thing we do know with reasonable certainty is that the core of Unit 2 has been damaged. Beyond that, the NRC speculates there are possible leakage paths from the reactor vessel into the drywell that could account for reports of high radiation levels in the drywell. The NRC does not believe the reactor vessel has given way, and we do believe practically all of the core remains in the vessel. These two beliefs drive our continuing recommendation that every available method should be used to add fresh water to the Unit 2 reactor vessel and continue cooling the core.

Please include opa.resource@nrc.gov on any e-mails with additional questions. Thank you.

Scott Burnell
Public Affairs Officer
Nuclear Regulatory Commission

From: Hayden, Elizabeth
To: Burnell, Scott
Subject: RE: Scott, I know at some point
Date: Thursday, April 07, 2011 9:05:00 AM

Maybe Matt should go join our experts in Japan

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: Burnell, Scott
Sent: Wednesday, April 06, 2011 7:03 PM
To: 'mattwald@nytimes.com'; Brenner, Eliot; Hayden, Elizabeth
Subject: Re: Scott, I know at some point

Speculate beyond the statement at your own risk, we will not participate in that exercise. Thanks.

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Wald, Matthew <mattwald@nytimes.com>
To: Burnell, Scott
Cc: Brenner, Eliot; Hayden, Elizabeth
Sent: Wed Apr 06 19:00:48 2011
Subject: RE: Scott, I know at some point

Yes, that sounds quite sensible. What I'm looking for, though, is some sense that, regardless of the mechanism, we are not on the road to ablating a bigger flaw in the vessel or its piping, followed by getting enough fuel into the drywell to do real damage there.

Matthew L. Wald
Washington Bureau
The New York Times
1627 Eye St NW, Suite 700
Washington, DC 20006
202-862-0363
cell: (b)(6)
fax: 202-318-0057

<http://www.nytimes.com/info/nuclear-energy/>
twitter: mattwaldnyt

AL/49

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 5:59 PM
To: Wald, Matthew
Cc: Brenner, Eliot; Hayden, Elizabeth
Subject: Re: Scott, I know at some point

Matt;

Please don't read anything "extra" into the statement. Nothing we have said should be interpreted to suggest any specific failure mechanism, particularly since we are dealing with many uncertainties.

Scott

Sent from an NRC Blackberry
Scott Burnell

(b)(6)

From: Wald, Matthew <mattwald@nytimes.com>
To: Burnell, Scott
Cc: Brenner, Eliot
Sent: Wed Apr 06 18:53:14 2011
Subject: RE: Scott, I know at some point

Scott,

My editors are asking whether we're entering the sequence described in section 12-5 of this document, where the core starts getting out of the vessel, in a "creep rupture," ablates the opening, and we end up with a core/concrete interaction at the bottom of the drywell. Is that what you're hinting at here?

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Matthew L. Wald
Washington Bureau
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1627 Eye St NW, Suite 700
Washington, DC 20006
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Thanks.

--- Matt

Matthew L. Wald
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From: Wald, Matthew [mailto:mattwald@nytimes.com]
Sent: Wednesday, April 06, 2011 4:02 PM
To: Burnell, Scott; OPA Resource
Cc: Hayden, Elizabeth; Brenner, Eliot
Subject: RE: This morning's hearing

Scott, does "possible leakage paths" mean the core melted through the vessel bottom?

Matthew L. Wald

Washington Bureau
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From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 2:46 PM
To: Burnell, Scott
Cc: Hayden, Elizabeth; Brenner, Eliot
Subject: RE: This morning's hearing

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Regarding questions following the House hearing this morning, the NRC has the following statement:

There continues to be a great deal we don't know regarding the situation at Fukushima. One thing we do know with reasonable certainty is that the core of Unit 2 has been damaged. Beyond that, the NRC speculates there are possible leakage paths from the reactor vessel into the drywell that could account for reports of high radiation levels in the drywell. The NRC does not believe the reactor vessel has given way, and we do believe practically all of the core remains in the vessel. These two beliefs drive our continuing recommendation that every available method should be used to add fresh water to the Unit 2 reactor vessel and continue cooling the core.

Please include opa.resource@nrc.gov on any e-mails with additional questions. Thank you.

Scott Burnell
Public Affairs Officer
Nuclear Regulatory Commission

From: Harrington, Holly
To: Stahl, Eric; Burnell, Scott; LIA06 Hoc; Hayden, Elizabeth
Cc: Emche, Danielle
Subject: RE: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos
Date: Thursday, April 07, 2011 9:21:11 AM
Attachments: image001.png

It's all fine

From: Stahl, Eric
Sent: Wednesday, April 06, 2011 7:17 PM
To: Harrington, Holly; Burnell, Scott; LIA06 Hoc; Hayden, Elizabeth
Cc: Emche, Danielle
Subject: RE: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Holly –

I assume you got these from some other channel, but this was sent to us with a disclaimer “OPA is working these issues.” We provided the Embassy the OPA statement about the NYT article earlier this morning.

Thanks,
Eric

From: Harrington, Holly
Sent: Wednesday, April 06, 2011 2:54 PM
To: Burnell, Scott; LIA06 Hoc; Hayden, Elizabeth
Cc: Stahl, Eric
Subject: RE: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

First off, nothing is attached to review.
Secondly, Eric Stahl, of OIP, is in Japan and was working on coordinating talking points with the Embassy. These might be the same (or duplicative.) I will cc him on this string.

Holly

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 2:42 PM
To: LIA06 Hoc; Hayden, Elizabeth; Harrington, Holly
Subject: RE: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Tom;

I'm otherwise occupied, hopefully Holly or Beth can look them over. Thanks.

Scott

From: LIA06 Hoc
Sent: Wednesday, April 06, 2011 2:39 PM
To: Burnell, Scott

AL/50

Cc: ET05 Hoc; Brenner, Eliot; Hayden, Elizabeth; LIA02 Hoc; LIA08 Hoc; LIA06 Hoc; OST01 HOC
Subject: FW: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Scott – I have done a quick review of the attached. Few of the questions deal with the NRC role and seems consistent with our position. Commenting on these Q&A seems outside the scope of the EOC role of supporting the OST, although I would offer a “no comment” if pressed. However, this seems an issue that is better handled OPA to OPA (contact information below). If you agree could you please take and handle as a normal course of business.

Thanks

Tom Bergman
Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: LIA02 Hoc
Sent: Wednesday, April 06, 2011 2:20 PM
To: LIA06 Hoc; LIA08 Hoc
Subject: FW: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Wednesday, April 06, 2011 2:07 PM
To: LIA01 Hoc; LIA11 Hoc; LIA02 Hoc; LIA03 Hoc
Cc: Kozal, Jason
Subject: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Hi there,

USAID has prepared the attached DRAFT Q&As for Ambassador Roos, and the NRC has been given an opportunity to comment. Please let me know if you would like to provide any comments.

Cheers,
Leigh

From: RMTPACTSU_INC
Sent: Wednesday, April 06, 2011 1:47 PM
To: RMTPACTSU_ELNRC
Cc: RMTPACTSU_RM
Subject: FW: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

Leigh,

FYI, we've received this for review. Hopefully your operations center has directly too. I'm having a look now but if you want to make any essential edits as part of the RMT approval process, please let me know.

Regards,

Lily

From: Gustafson, Rebecca (DCHA/OFDA) [mailto:rgustafson@USAID.GOV]
Sent: Wednesday, April 06, 2011 1:16 PM
To: RMTPACTSU_RM
Cc: RMTPACTSU_INC
Subject: FW: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

Made some edits. You guys have any more? (Could you also make sure that the NRC and HHS peeps are seeing these on their end?)

THANKS!

RG

From: Jackson, Gina (LPA/AA)
Sent: Wednesday, April 06, 2011 12:26 PM
To: Gustafson, Rebecca (DCHA/OFDA)
Subject: FW: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

Any issues here?

Thanks,

Gina

Gina Jackson
USAID Press Office
1300 Pennsylvania Ave N.W.
Washington D.C. 20523
phone: (202) 712-1917
fax: (202) 216-3034



USAID
FROM THE AMERICAN PEOPLE

From: McKellogg, Kelly E
Sent: Wednesday, April 06, 2011 12:03 PM
To: PA Japan; HullRyde, Leslie CDR OSD PA; Jackson, Gina (LPA/AA); Jensen, Robert R.; Hayden, Caitlin M; Petrovich, Peggy L; CAPRESSREQUESTS; (b)(6); (b)(6)
Cc: EAP-P-Office-DL
Subject: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

All,

Please clear the attached Q&A for use by Amb. Roos in his media engagements next week. Please send us your edits by COB.

Bob and Caitlin – if you feel other agencies should clear this, will you please help us direct this to the right folks?

Thanks,

Kelly McKellogg
Bureau of East Asian and Pacific Affairs
Office of Public Affairs (EAP/P)
202-647-1028

SBU
This email is UNCLASSIFIED.

From: Quade, Christopher P
Sent: Wednesday, April 06, 2011 6:56 AM
To: PA Japan
Subject: Draft Q&A for Ambassador Roos

All,

For your review and clearance, attached please find the draft Q&A document for Ambassador Roos's upcoming (but still TBC) media engagements. As Leslie mentioned in her e-mail, the first such engagement will likely not take place until early next week.

These are the top line messages for the Ambassador to use in his interviews, but they might also be useful for Washington press guidance.

Many thanks,
Christopher

Christopher P. Quade
Deputy Press Attaché
U.S. Embassy Tokyo
米国大使館報道室
Office: 81-3-3224-5300
<http://tokyo.usembassy.gov>

This email is UNCLASSIFIED.



USAID
FROM THE AMERICAN PEOPLE

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

Cleared:

(Embassy Tokyo)

PAS: PHoffmann ok

POL: JPommershiem ok

ECON: JLawrence ok

MGT: JForbes ok

CONS: PFitzgerald ok

USAID: JBeed ok

From: Hayden, Elizabeth
To: Brenner, Eliot
Subject: RE: At ops center
Date: Thursday, April 07, 2011 9:23:00 AM

Of course this is 180 degrees from what Wiggins said Josh said about this document yesterday.

Are we going to provide it to the hill?

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

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

From: Brenner, Eliot
Sent: Thursday, April 07, 2011 9:16 AM
To: Hayden, Elizabeth
Subject: At ops center

To deal with the "shall we release" the 3/26 document. Fyi, chairMan said this is a government to government communication and if anyone wants it they can foia it.

Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200
C: (b)(6)
Sent from my Blackberry

AL/51

From: Hayden, Elizabeth
To: "mstewart@knovel.com"
Subject: FW: Request for Speaker
Date: Thursday, April 07, 2011 10:01:00 AM

Ms. Stewart,

Thank you for the opportunity to speak at your webinar about the Japan nuclear plants and what the event might mean for the U.S. nuclear industry. It is premature for us to be speaking about the Japan situation which is still evolving. We have formed a task force to review the Japan event and make recommendations for any regulatory improvements that may be needed. The results of this review will be briefed to our Commission July 19. Please see our press release at: <http://pbadupws.nrc.gov/docs/ML1109/ML110910479.pdf>

Beth Hayden
Senior Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment
301-415-8200

From: Marissa Stewart [mailto:mstewart@knovel.com]
Sent: Thursday, April 07, 2011 9:41 AM
To: OPA Resource
Subject: Request for Speaker

To Whom It May Concern:

I am contacting you regarding a speaker request.
If you are unfamiliar, Knovel is a web-based application that integrates technical information with analytical and search tools to drive innovation and deliver answers engineers can trust. Knovel's collection includes leading reference works and databases from over 70 leading technical publishers and professional societies including Elsevier.
Knovel produces a webinar series in which renowned authors and industry experts speak to an engineering audience about topics which are important to their everyday work needs.

We've recently had conversations with committee members from the National Council on Radiation Protection about hosting a webinar related to nuclear plant design and human factors as well as the related impact of the Fukushima incident. Our contacts at NCRP are prepared to speak on the health and environmental impacts of radiation exposure and the safety recommendations that are relevant in the NCRP reports available on Knovel.

We are also looking for an expert who can speak about the design of the Fukushima plant and the potential flaws that may have contributed to the current situation. We would also like someone to comment on how this may relate to the US Nuclear industry in terms of the government response and investigations and what this might mean in terms of updating existing infrastructure or the

AL / 52

affect on the new constructions that were/are in the planning stages now. I was hoping that someone from the U.S. Nuclear Regulatory Commission might be available to participate. Though a date has not been finalized we are looking at late May or June dates for the session.

You may like to review our most recent webinar "[Optimizing Risk Management and Safety Culture](#)" for a better idea of how our webinars are structured. Basically, Knovel is the host of the webinar, but after introducing Knovel and why we think the topic is important the rest of the presentation is left to the moderator and panelists to do what they do best present expert content.

If you have interest in participating or would like to forward this message onto someone you would recommend, please contact me at mstewart@knovel.com or (646) 747-8645.

I look forward to hearing from you. Thank you for considering this opportunity.

Best,
Missy

Missy Stewart | Marketing Manager | **Knovel** | 489 Fifth Ave. 9th Fl. NY, NY 10017
office: 646.747.8645 | mobile: (b)(6) | fax: +1 212.297.0807 | e-mail: mstewart@knovel.com

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From: Vietti-Cook, Annette
To: Jaczo, Gregory; Batkin, Joshua; Weber, Michael
Cc: ET05 Hoc; LIA06 Hoc; LIA08 Hoc; LIA02 Hoc; LIA03 Hoc; Coggins, Angela; Bradford, Anna; Loyd, Susan; Borchardt, Bill; Virgilio, Martin; Doane, Margaret; Mamish, Nader; Brenner, Eliot; Hayden, Elizabeth; Burns, Stephen; Rothschild, Trip; Svinicki, Kristine; Sharkey, Jeffry; Apostolakis, George; Sosa, Belkys; Magwood, William; Bubar, Patrice; Ostendorff, William; Nieh, Ho; Champ, Billie; Mike, Linda; McKelvin, Sheila; Bates, Andrew
Subject: FW: eWASH - WH0176
Date: Thursday, April 07, 2011 10:01:53 AM
Attachments: 4411002103a.pdf

EDO for App. Action

From: NRCHQ
Sent: Wednesday, April 06, 2011 11:38 PM
To: Dodmead, James; Mangefrida, Michael; Giles, Vanessa; Parsons, Darryl
Subject: FW: eWASH - WH0176

From: eWash-WHSR (b)(6)
Sent: Wednesday, April 06, 2011 11:37:46 PM
To: (b)(6); ewash@state.gov; JCC@usdoj.gov; opscenter@usda.gov; ewash@doc.gov; Ekaterini Malliou (HHS Executive Secretariat); HHSComSec@hhs.gov; HHSExecSec@hhs.gov; CMC-01@dot.gov; CMC-02@dot.gov; S60.policy@dot.gov; DOE.Commcenter@in.doe.gov; (b)(6); CommCenterStaff@hq.dhs.gov; martin.john@epa.gov; USAID; NRCHQ
Cc: eWash-WHSR
Subject: eWASH - WH0176
Auto forwarded by a Rule

CLASSIFICATION: UNCLASSIFIED

FROM:	NSS	PH:	(b)(6)	ROOM:	302A
SUBJECT:	SOC for the April 4 DC on Japan		PAGES:	6	

PLEASE DELIVER TO:

LOCATION	DELIVER TO	ROOM	PHONE
STATE	EXECUTIVE SECRETARY		
DEFENSE	EXECUTIVE SECRETARY		
JUSTICE	ASSOCIATE DEPUTY ATTORNEY GENERAL		

AL/53

AGRICULTURE	CHIEF OF STAFF		
COMMERCE	DIRECTOR, EXECUTIVE SECRETARIAT		
HHS	EXECUTIVE SECRETARY		
TRANSPORTATION	DIRECTOR, EXECUTIVE SECRETARIAT		
ENERGY	DIRECTOR, EXECUTIVE SECRETARIAT		
JCS	SPECIAL ASSISTANT FOR INTERAGENCY AFFAIRS (J-5)		
DHS	EXECUTIVE SECRETARY		
EPA	CHIEF OF STAFF		
USUN	SPECIAL ASSISTANT TO THE REPRESENTATIVE OF THE U.S.		
USAID	ACTING EXECUTIVE SECRETARY		
NRC	SECRETARY OF THE COMMISSION		

SPECIAL DELIVERY INSTRUCTIONS/REMARKS:

(b)(5)

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

Attachment
Tab A Summary of Conclusions

TAB A

002103

NATIONAL SECURITY STAFF
WASHINGTON, D.C. 20504

(b)(5)

(b)(5)

(b)(5)

From: LIA08 Hoc
To: LIA04 Hoc; Oesterle, Eric; Hayden, Elizabeth
Cc: LIA01 Hoc; LIA06 Hoc
Subject: RE: Request of Release for NY Times mentioned Document FW: IN 2011-08 (ML110830824)
Date: Thursday, April 07, 2011 10:32:13 AM

All...our federal liaison desk will reply back to Mr. Joosten that DOE has already been provided copies of this document, and suggest at he work with other DOE offices to obtain this document, under DOE ODO distribution rules.

Jeff Temple
Liaison Team Response Program manager

From: LIA04 Hoc
Sent: Thursday, April 07, 2011 10:15 AM
To: LIA08 Hoc; LIA06 Hoc
Subject: Request of Release for NY Times mentioned Document FW: IN 2011-08 (ML110830824)

From: Oesterle, Eric
Sent: Thursday, April 07, 2011 10:10 AM
To: LIA04 Hoc
Cc: Markley, Michael; Nelson, Robert
Subject: FW: IN 2011-08 (ML110830824)

Liaison Team,

Based on OPA response, please see email in chain below from Mr. Joosten U.S. EIA HQ. He is requesting copy of "confidential" NRC report referred to in NY Times article of 4/6. Please share with LT HOC lead and ET HOC, thanks. Mr. Joosten's contact info is in email below. Thanks!

Eric

Eric R. Oesterle
NRR Communications Team
Senior Policy Analyst (NRO/DNRL)
U.S. Nuclear Regulatory Commission
301-415-1365

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 4:23 PM
To: Oesterle, Eric
Cc: Burnell, Scott
Subject: FW: IN 2011-08 (ML110830824)

Suggest you check with the ET in the Ops Center. OPA has no authority to release the report. However, release of this report to the public is being discussed tomorrow at 9 am

AL/54

in the Ops Ctr.

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: Burnell, Scott
Sent: Wednesday, April 06, 2011 3:30 PM
To: Hayden, Elizabeth
Subject: FW: IN 2011-08 (ML110830824)

FYI, that's (b)(6) asking – she'd come over earlier this morning and asked informally as well.

From: Oesterle, Eric
Sent: Wednesday, April 06, 2011 3:25 PM
To: Burnell, Scott
Cc: Markley, Michael; Nelson, Robert
Subject: FW: IN 2011-08 (ML110830824)

Scott,

Stacey wasn't sure what to do with this request and sent it to us. I am forwarding to you for proper disposition.

Eric

Eric R. Oesterle
NRR Communications Team
Senior Policy Analyst (NRO/DNRL)
U.S. Nuclear Regulatory Commission
301-415-1365

From: Rosenberg, Stacey
Sent: Wednesday, April 06, 2011 1:50 PM
To: Markley, Michael; Nelson, Robert; Oesterle, Eric
Subject: FW: IN 2011-08 (ML110830824)

fyi

From: Joosten, James [mailto:James.Joosten@eia.gov]
Sent: Wednesday, April 06, 2011 10:03 AM
To: Hawes, Cathy
Subject: RE: IN 2011-08 (ML110830824)

Cathy,

Can the NRC share this "confidential" report on Fukushima with the EIA?

See attached NY Times article first paragraph.

Jim

James Joosten
Senior Energy Analyst
U.S. Energy Information Administration Headquarters
Room: 2H-073
1000 Independence Ave. SW
Washington, DC 20585
tel: 202-586-5468
fax: 202-237-1934
e-mail: james.joosten@eia.doe.gov

From: Cathy Hawes [mailto:cmh2@nrc.gov]
Sent: Wednesday, April 06, 2011 10:47 AM
To: Joosten, James
Subject: IN 2011-08 (ML110830824)

Attached is an PDF version Information Notice 2011-08, Tohoku-Taiheiyoku-Oki Earthquake Effects On Japanese Nuclear Power Plants – For Fuel Cycle Facilities, dated March 31, 2011, (ML110830824), 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

From: McIntyre, David
To: Paine, Anne; Burnell, Scott; Hannah, Roger
Cc: Hayden, Elizabeth
Subject: RE: spent fuel pools versus dry cask storage
Date: Thursday, April 07, 2011 10:46:54 AM

Here's the text of his speech.

From: Paine, Anne [mailto:APAIN@tennessean.com]
Sent: Thursday, April 07, 2011 10:28 AM
To: Burnell, Scott; Hannah, Roger; McIntyre, David
Cc: Hayden, Elizabeth
Subject: RE: spent fuel pools versus dry cask storage

Is this a correct quote?

"The most clear-cut example of an area where additional safety margins can be gained involves additional efforts to move spent nuclear fuel from pools to dry caks storage," Commissioner Gergory B. Jaczko, speech at the Nuclear Energy Institutes's Dry Storage Information Forum, May 13, 2008.

Thanks,
Anne

Anne Paine
Environmental Reporter
The Tennessean
1100 Broadway
Nashville, TN 37203

office: 615-259-8071
cell: (b)(6)

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Tuesday, April 05, 2011 5:18 PM
To: Paine, Anne; Hannah, Roger; McIntyre, David
Cc: Hayden, Elizabeth
Subject: Re: spent fuel pools versus dry cask storage

Anne;

All the Chairman's recent prepared remarks are available on the website's Japan page -- the link's prominent on the home page.

Beyond that, I don't have a transcript of the 3/30 hearing, so I can't comment on AFP's quote accuracy. I will note, however, that the entire Commission voted for the staff to perform the two-pronged review, starting with the 90-day look to see if any immediate actions are warranted. That will be followed by a 6-month effort to see if any permanent regulation changes are called for.

Thanks.

Scott

AL/SS

Sent from an NRC Blackberry

Scott Burnell

(b)(6)

From: Paine, Anne <APAIN@tennessean.com>
To: Burnell, Scott; Hannah, Roger; McIntyre, David
Sent: Tue Apr 05 18:05:01 2011
Subject: RE: spent fuel pools versus dry cask storage

I'm still trying to get a citation on the Rand report info...

Also, is this all correct (what I've highlighted in a French news report) about the NRC and what Jaczko said?

Agence France Presse -- English

April 2, 2011 Saturday 6:17 PM GMT

Two of the Japanese plant's six spent fuel rod pools were apparently damaged following the quake and tsunami, said Gregory Jaczko, head of the US Nuclear Regulatory Commission (NRC).

"It was possible there was a leak," he told a US Senate hearing on March 30, soon after he returned from Japan.

US observers fear the fuel storage containment pools, located on an upper part of the reactor buildings at Fukushima, were cracked by explosions after the quake and tsunami and are leaking.

Jaczko said that in the United States, such pools are "robust structures equipped to withstand natural disasters like an earthquake and tsunami," strong enough to safely store nuclear waste for at least a century.

But he nevertheless ordered a 90-day review of the Fukushima disaster, which would go far to help assess the safety status at the spent fuel pools at 104 US reactors.

Anne Paine
Environmental Reporter
The Tennessean
1100 Broadway
Nashville, TN 37203

office: 615-259-8071

cell: (b)(6)

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Tuesday, April 05, 2011 3:47 PM
To: Paine, Anne; Hannah, Roger; McIntyre, David
Subject: RE: spent fuel pools versus dry cask storage

Hi Anne;

Without knowing the Rand citation, all I can refer you to is testimony by Chairman Jaczko and Acting Asst Sec Energy Lyons (a former NRC Commissioner) last Thursday, 3/31, before the House Appropriations Subcommittee on Energy and Water Development:

REP. FATTAH(?): Is one safer than the other?

MR. JACZKO: We think that both --

REP. FATTAH(?): I know you think both are safe.

MR. JACZKO: -- are safe.

REP. FATTAH(?): I'm asking, in a relative sense, is one safer?

MR. JACZKO: It's not clear at this point. They both provide a very, very high degree of safety, and when you get into the level of safety that we're talking about, the likelihood of anything bad happening is so small in a spent fuel pool and it's so small in a dry cask storage, that it's hard at those very, very small levels to really say one is more or less safe, because it's -- it's just very, very low likelihood of any concern. And I would just add that we are constantly reviewing and monitoring the safety of the spent fuel pools, of the dry cask storage, so the review we're doing is not -- is not a review to --

REP. FATTAH(?): I'm not trying to cast any suggestions to the contrary, and I don't think that we -- that that would be right to do so. I think we should -- I'm pro-nuclear. Part of this process is spent fuel, and we have a lot more of it than, for instance, the French do because they have a different process altogether, right, in terms of reusing this. But, Dr. Lyons, would you care to offer to the committee whether one process is safer -- the dry cask versus the pool? You have a degree from Cal Tech in astrophysics. Would you like to -- we're just politicians so --

MR. LYONS: I would give you the same answer that Dr. Jaczko did. They're both carefully evaluated; they're both safe.

The Commission's recent update of the waste confidence decision concludes at this point that existing spent fuel storage methods are acceptable for up to 60 years beyond the licensed operational life of a reactor. Thanks.

Scott

From: Paine, Anne [mailto:APAIN@tennessean.com]
Sent: Tuesday, April 05, 2011 4:25 PM
To: Burnell, Scott; Hannah, Roger; McIntyre, David
Subject: RE: spent fuel pools versus dry cask storage

I can't find a footnote or citation beyond the (NRC, 1990, 2008b).

I'll see if I can get more info.

In the meantime, what does the NRC think about this topic?

Is there any preference for moving the spent fuel out of the pool after 7-8 years (or however many in which it would have cooled a lot) into dry casks?

Or does the NRC think that it's just as safe to leave spent fuel in a pool for scores of years - so long as there room in it to download all the fuel in the core as needed.

Thanks,

Anne

Anne Paine
Environmental Reporter

The Tennessean
1100 Broadway
Nashville, TN 37203

office: 615-259-8071

cell: (b)(6)

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Tuesday, April 05, 2011 2:55 PM
To: Paine, Anne; Hannah, Roger; McIntyre, David
Subject: RE: spent fuel pools versus dry cask storage

Hello Anne;

Please provide a specific URL or other reference where I can see that quote and footnote in full. Thanks.

Scott

From: Paine, Anne [mailto:APAIN@tennessean.com]
Sent: Tuesday, April 05, 2011 3:51 PM
To: Hannah, Roger; Burnell, Scott
Subject: spent fuel pools versus dry cask storage

A Rand report "Managing Spent Nuclear Fuel" dated 2010 says that the NRC "considers dry storage safer than pool storage and has concluded that dry storage of spent fuel at nuclear power plants is safe for at least 100 years." (NRC, 1990, 2008b)
Is this correct?

The operable word being "safer:" I assume the NRC says the pools are safe but the dry casks offer additional safety factors. Correct? Thanks.

Anne P.

Anne Paine
Environmental Reporter
The Tennessean
1100 Broadway
Nashville, TN 37203

office: 615-259-8071

cell: (b)(6)

From: Burnell, Scott
To: Dvorak, Phred; Hayden, Elizabeth
Cc: Smith, Rebecca
Subject: RE: questions from the WSJ
Date: Thursday, April 07, 2011 11:12:57 AM

Hello Phred & Rebecca;

I do apologize for not getting back to you yesterday. You probably haven't received my out-of-office reply, but I'm not going to be available until next Wednesday (yes, I know I'm "breaking cover" replying, but just to move this along).

The short answer is the BWROG protocols are not publicly available, so what I provided earlier yesterday is all we have. For anything further on this, please work with Beth Hayden and she'll have someone in OPA work with you. Thanks.

Scott

From: Dvorak, Phred [Phred.Dvorak@wsj.com]
Sent: Thursday, April 07, 2011 8:42 AM
To: Burnell, Scott
Cc: Smith, Rebecca
Subject: RE: questions from the WSJ

Greetings Scott.

I know you had a busy day yesterday, but I was wondering if you've been able to find out whether the BWROG protocols (Rev 2, March 2001), are public documents yet. I came across a reference to them in a different paper today (the last page of NEDO-33526 Revision 1), which had the number ML012350232. But when I looked for that in your ADAMS database, it turned up only a notice for training sessions.

Also, I looked up Rev 1 at ML072850981, as you suggested. But instead of the BWORG Rev 1 guidelines (1994), I found an NEI paper titled "Severe Accident Issue Closure Guidelines."

Hoping someone there can help clear this up,
Phred

(b)(6)

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 6:24 AM
To: Dvorak, Phred
Cc: Smith, Rebecca
Subject: RE: questions from the WSJ

Hello Phred;

The staff's been working on this most of the day -- I can verify the generic guideline document exists, but the staff needs additional time to confirm whether it's a publicly available document. Until that's known, we can't even provide excerpts or address several of your questions.

The staff does say the industry committed to enhance severe accident management guidelines in a "formal position" (November 21, 1994 NEI letter). Each licensee would assess its (then-)current capabilities to respond to severe accident conditions using Section 5 of NEI-91-04, Revision 1, "Severe Accident Issue Closure Guidelines." This

AL/56

includes implementing appropriate improvements identified in the assessment and developing and implementing severe accident management guidelines (SAMGs).

Revision 1 of BWROG guidelines are publically available at ML072850981. Revision 1 may still be used according to the industry commitment.

A related answer is below. Please let me know if you have other questions; and I'll let you know ASAP about whether the guidelines are public. Thanks.

Scott

From: Dvorak, Phred [mailto:Phred.Dvorak@wsj.com]
Sent: Tuesday, April 05, 2011 9:51 AM
To: Burnell, Scott
Subject: questions from the WSJ

Scott, hi --

It's Phred Dvorak at the Wall Street Journal in Tokyo, with those questions about BWR accident guidelines.

As I mentioned, I'm looking into the idea that some actions that are required by the "generic" BWR severe accident guidelines in the U.S. don't seem to have been performed by the Fukushima Daiichi operators in Japan. So to follow up, I'm trying to first pin down what those standard protocols are in the U.S. -- specifically with regard to venting the primary containment vessel and injecting water.

- I'm told that the latest version of those protocols is this: "BWR Owners' Group Emergency Procedure and Severe Accident Guidelines - Rev 2, 2001 - 03". Can you confirm that's true? And are they publically available?

- If they're not, could I obtain excerpts from the parts concerning venting the primary containment vessel (when, how and how long to vent, venting philosophy -- how to factor in risk of radiation release etc, who's responsible for the decision) and injecting water (similarly: when it's absolutely necessary to inject, who's responsible for the decision).

- Further to the "venting philosophy" question, I found in your public documents database a Jan. 28, 2000 letter from the BWR Operators' Group to the NRC expressing some concerns about wording in the (then) proposed Revision 2. The wording in question was that vents should be opened "irrespective of the offsite radioactivity release rate." The BWROG asked the wording be softened. Can you tell me how this issue was resolved? (What was the final wording?)

- The same letter also noted the need for guidance that "clearly established responsibilities within the licensee's management organization for authorizing containment venting under accident conditions." Could you please tell me whether that happened, and what the resulting guidance was?

- In the venting and water injection instructions, are there parts of the generic SAG (the BWROG Severe Accident Guidelines referred to above) that are modifiable by the operators and parts that are not? What are the NRC rules concerning how such SAGs can or should be modified with plant-specific information?

ANSWER: Each plant is required by 10 CFR 50.47 to have an emergency plan to provide assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Industry has committed to implement Section 5 of NEI-91-04, Revision 1, which includes developing plant-specific SAMGs and integrate SAMGs with Emergency Operating Procedures and the Emergency Plan. It is necessary for the generic SAMGs be tailored to the plant-specific application, particularly for incorporating design-

specific limits, computational aids, etc., as well as for accommodating the plant-specific organizational and decision-making structure. This tailoring would have been part of the original implementation, and there is an expectation that the Accident Management Program be maintained as a living program such that design or organizational changes would be incorporated, to the extent that they affect the guidelines. Emergency plans are developed specific to each facility and the community and environment around the facilities. 10 CFR 50.54(q) provide that licensee may make revision to the plan without prior NRC review provide the revision does not decrease the effectiveness of the plan and that the plan, as changed, continue to meet the standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. The emergency plan, and all changes to the plan, are provided to the NRC in accordance with 10 CFR 50.4(b)(5). These submittals are not publically available. The SAMGs need not be submitted to the NRC.

Many thanks in advance for your help!
Phred

Phred Dvorak
Wall Street Journal
(b)(6) (cellphone)
phred.dvorak@wsj.com

From: McIntyre, David
To: Harrington, Holly; Anderson, Brian; Hayden, Elizabeth
Subject: RE: questions on reactor readiness
Date: Thursday, April 07, 2011 5:18:01 PM

Is this relating to all those extensions we had to grant because of the short implementation deadline?

From: Harrington, Holly
Sent: Thursday, April 07, 2011 5:15 PM
To: McIntyre, David; Anderson, Brian; Hayden, Elizabeth
Subject: FW: questions on reactor readiness

Let's talk in the morning. I don't know how to approach this

From: Peter Behr [mailto:pbehr@eenews.net]
Sent: Thursday, April 07, 2011 5:05 PM
To: Harrington, Holly
Subject: questions on reactor readiness

<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2011/ML110760432.pdf>

That's the information release.

The key parts say:

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

AL/57

and
containment, and

- Enhanced response strategies for challenges to core cooling and containment.

My question is whether the NRC has determined on its own, or has been informed by NEI, that all 104 U.S. reactors have taken these steps and that the measures are fully operable today.

The notice continued, to discuss the B5B guidance. It says:

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." ...

The Statement of Considerations for this rulemaking specifically noted that the requirements in 10 CFR 50.54(hh) are intended to address certain events that are the cause of large fires and explosions that affect a substantial portion of the nuclear power plant and are not limited or directly linked to an aircraft impact. In addition, the rule contemplates that the initiating event for such large fires and explosions could be any number of beyond-design basis events. Such events include natural phenomena such as those described in GDC 2 (i.e., earthquakes, tornadoes, floods, tsunamis, and seiches), without regard to the GDC 2 provisions governing the severity of natural phenomena.

NRC regulations at 10 CFR 50.63, "Loss of All Alternating Current Power," require that lightwater-cooled nuclear power plants be capable of withstanding for a specified duration and recovering from a station blackout.

My second question is whether NRC has determined that all the licensees are in compliance with the 2009 Federal Register notice.

Many thanks,
Pete

Peter Behr
Reporter, *ClimateWire*
pbehr@eenews.net
202-446-0420 (p)

(b)(6)

 (c)
202-737-5299 (f)

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From: Gilfillan, Brendan@epamail.epa.gov
To: LaVera, Damien; Andy.Adora@epamail.epa.gov; Paradiso, Darragh T; Mueller, Stephanie; NITOPS; PWG; USAID Press Officers (USAID); Jackson, Gina (LPA/AA); HullRyde, Leslie CDR OSD PA; Hayden, Elizabeth; Brenner, Eliot; Dori Salcido; btb8; Amy Kudwa
Cc: Jensen, Robert R.; Hayden, Caitlin; EAP-P-Office-DL
Subject: Re: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima
Date: Thursday, April 07, 2011 5:26:43 PM

No edits from EPA.

From: "LaVera, Damien" [Damien.LaVera@nnsa.doe.gov]
Sent: 04/07/2011 05:24 PM AST
To: Adora Andy; "Paradiso, Darragh T" <ParadisoDT@state.gov>; "Mueller, Stephanie" <Stephanie.Mueller@hq.doe.gov>; NITOPS <NITOPS@nnsa.doe.gov>; PWG <PWG@NNSA.Doe.Gov>; "USAID Press Officers (USAID)" <USAIDPressOfficers@usaid.gov>; "Jackson, Gina (LPA/AA)" <gjackson@usaid.gov>; "HullRyde, Leslie CDR OSD PA" <(b)(6)>; Elizabeth Hayden <Elizabeth.Hayden@nrc.gov>; Eliot Brenner <Eliot.Brenner@nrc.gov>; Dori Salcido <Dori.Salcido@hhs.gov>; btb8 <btb8@cdc.gov>; Amy Kudwa <amy.kudwa@dhs.gov>; Brendan Gilfillan
Cc: "Jensen, Robert R." <(b)(6)>; "Hayden, Caitlin" <(b)(6)>; EAP-P-Office-DL <EAP-P-Office-DL@state.gov>
Subject: RE: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima

Darragh,

Attached are DOE and NNSA's edits. The one substantive concern we have is with the two bullets detailing the experts from Sandia and PNNL. We'd like to combine that into one bullet that doesn't say which labs.

Thanks,
Damien

From: Andy.Adora@epamail.epa.gov [mailto:Andy.Adora@epamail.epa.gov]
Sent: Thursday, April 07, 2011 4:59 PM
To: Paradiso, Darragh T; LaVera, Damien; Mueller, Stephanie; NITOPS; PWG; USAID Press Officers (USAID); Jackson, Gina (LPA/AA); HullRyde, Leslie CDR OSD PA; Elizabeth Hayden; Eliot Brenner; Dori Salcido; btb8; Amy Kudwa; Brendan Gilfillan
Cc: Jensen, Robert R.; Hayden, Caitlin; EAP-P-Office-DL
Subject: Re: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima

Adding Brendan

From: "Paradiso, Darragh T" [ParadisoDT@state.gov]
Sent: 04/07/2011 03:55 PM AST
To: "LaVera, Damien" <Damien.LaVera@nnsa.doe.gov>; "Mueller, Stephanie" <Stephanie.Mueller@hq.doe.gov>; <nitops@nnsa.doe.gov>; <pwg@nnsa.doe.gov>; "USAID Press Officers (USAID)" <USAIDPressOfficers@usaid.gov>; "Jackson, Gina (LPA/AA)"

AL/58

<gjackson@usaid.gov>; "HullRyde, Leslie CDR OSD PA" <(b)(6)>
<Elizabeth.Hayden@nrc.gov>; <Eliot.Brenner@nrc.gov>; <Dori.Salcido@hhs.gov>;
<btb8@cdc.gov>; <Amy.Kudwa@dhs.gov>; Adora Andy
Cc: "Jensen, Robert R." <(b)(6)>; "Hayden, Caitlin"
<(b)(6)>; "EAP-P-Office-DL" <EAP-P-Office-DL@state.gov>
Subject: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima

Good afternoon --

Please clear this interagency fact sheet on U.S.-Japan cooperation on the Fukushima nuclear situation, drafted at Embassy Tokyo. The interagency reps in Tokyo have already cleared, but the Embassy has specifically requested Washington clearance.

Ideally, they would like to have this back by this evening our time, so your prompt reply is appreciated. Apologies for the late notice.

If you don't need to clear, please tell me and I'll put you down as "info."

Thank you,
Darragh

Darragh Paradiso
Director, Office of Public Affairs (EAP/P)
Bureau of East Asian and Pacific Affairs
U.S. Department of State
ParadisoDT@state.gov
202-647-2149 (Office)
(b)(6) (Blackberry)

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PRESS RELEASE



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米国大使館 報道室 PRESS OFFICE, U.S. EMBASSY, TOKYO TEL. 3224-5264/5266 FAX. 3586-3282

(b)(5)

(b)(5)

(b)(5)

Drafted: Embassy Tokyo

Approved: EAP/FO PDAS Donovan

Cleared:

(Embassy Tokyo)

AEX: SMorimura
HHS: NColeman
DOE: RCherry
NRC: EStahl

(Washington)

D(S): CMace	ok
P: NLeou	ok
S/P: TJung	ok
C: CKlevorick	ok
M: PPetrovich	ok
L/EAP: RHarris	ok
L/NPV: JHerr	ok
PA	
EAP/J: CGreen	ok
EAP/P: DTParadiso	ok
EAP/EX	info
CA/P	info

NRC
DOE
OSD
HHS
CDC
NSS

From: (b)(6)
To: Brenner, Eliot
Cc: Hayden, Elizabeth
Subject: Re: Welcome Letter (NRC)
Date: Thursday, April 07, 2011 5:45:17 PM

We shall persevere - (It may just take a while).

FYI, the offer letter said I would get sick but no annual. No es una problema!

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

From: "Eliot Brenner" <Eliot.Brenner@nrc.gov>
To: (b)(6)
Cc: "Elizabeth Hayden" <Elizabeth.Hayden@nrc.gov>
Sent: Thursday, April 7, 2011 4:35:40 PM
Subject: RE: Welcome Letter (NRC)

You look to me for management answers? Jeez, that's pretty dangerous.

Actually, I think you will do your timekeeping as before, so it goes into the HRMS system and you get credit for sick leave and annual leave. That is what I think. It may not comport with reality. Beth will be here tomorrow and she may know the true facts.

Glad to have you back, though wish we didn't have these circumstances.

eliot

From: (b)(6) [mailto:(b)(6)]
Sent: Thursday, April 07, 2011 3:57 PM
To: Brenner, Eliot
Subject: Fwd: Welcome Letter (NRC)

----- Forwarded Message -----

From: (b)(6)
To: "eliot brenner" <eliot.brenner@nrc.gov>, "elizabeth hayden" <elizabeth.hayden@nrc.gov>
Sent: Thursday, April 7, 2011 3:56:00 PM
Subject: Fwd: Welcome Letter (NRC)

Please read the attached letter.

AL/59

Who will set my schedule? Am I expected to be in the office the usual 40 hours a week? I plan to work daily 8 to 4:30 or 4:45, depending upon the regional office lunch schedule. The offer letter said I would get 4 hours of sick leave for each two-week work period but no annual. Who keeps track of my time and attendance and how do I report that?

Looking forward to getting my feet wet for a time again. Let's hope nothing more happens in Japan or elsewhere

Thanks,

Ken

--- Forwarded Message -----

From: "Madonna Watson" <Madonna.Watson@nrc.gov>

To: (b)(6), "Roger Hannah" <Roger.Hannah@nrc.gov>, "Gloria Reeves" <Gloria.Reeves@nrc.gov>

Cc: "Eliot Brenner" <Eliot.Brenner@nrc.gov>, "Elizabeth Hayden" <Elizabeth.Hayden@nrc.gov>, "Holly Harrington" <Holly.Harrington@nrc.gov>, "Valerie Shannon" <Valerie.Shannon@nrc.gov>

Sent: Thursday, April 7, 2011 9:16:49 AM

Subject: Welcome Letter (NRC)

Hello Ken,

Attached is your Welcome Letter providing information to report to Region 2 on Monday.

If you have any questions please call me at 301-415-3697.

Welcome Back!

Thanks,
Madonna

From: Kudwa, Amy
To: Paradiso, Darragh T; LaVera, Damien; Mueller, Stephanie; nitops@nnsa.doe.gov; pwg@nnsa.doe.gov; USAID Press Officers (USAID); Jackson, Gina (LPA/AA); HullRyde, Leslie CDR OSD PA; Hayden, Elizabeth; Brenner, Eliot; Dori.Salcido@hhs.gov; btb8@cdc.gov; Andy.Adora@epamail.epa.gov
Cc: Jensen, Robert R.; Hayden, Caitlin; EAP-P-Office-DL
Subject: RE: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima
Date: Thursday, April 07, 2011 5:53:24 PM

I don't see any DHS equities in this, so no comment or concern from here.

Amy Kudwa
Deputy Assistant Secretary for Media Affairs
Office of Public Affairs
U.S. Department of Homeland Security
202.282.8010 main
202.447.3217 direct
(b)(6) cell

From: Paradiso, Darragh T [mailto:ParadisoDT@state.gov]
Sent: Thursday, April 07, 2011 3:55 PM
To: LaVera, Damien; Mueller, Stephanie; nitops@nnsa.doe.gov; pwg@nnsa.doe.gov; USAID Press Officers (USAID); Jackson, Gina (LPA/AA); HullRyde, Leslie CDR OSD PA; Elizabeth.Hayden@nrc.gov; Eliot.Brenner@nrc.gov; Dori.Salcido@hhs.gov; btb8@cdc.gov; Kudwa, Amy; Andy.Adora@epamail.epa.gov
Cc: Jensen, Robert R.; Hayden, Caitlin; EAP-P-Office-DL
Subject: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima
Importance: High

Good afternoon --

Please clear this interagency fact sheet on U.S.-Japan cooperation on the Fukushima nuclear situation, drafted at Embassy Tokyo. The interagency reps in Tokyo have already cleared, but the Embassy has specifically requested Washington clearance.

Ideally, they would like to have this back by this evening our time, so your prompt reply is appreciated. Apologies for the late notice.

If you don't need to clear, please tell me and I'll put you down as "info."

Thank you,
Darragh

Darragh Paradiso
Director, Office of Public Affairs (EAP/P)
Bureau of East Asian and Pacific Affairs
U.S. Department of State
ParadisoDT@state.gov
202-647-2149 (Office)
(b)(6) (Blackberry)

SBU

AL/60

This email is UNCLASSIFIED.

From: Jackson, Gina (LPA/AA)
To: [Paradiso, Darragh T](#); [LaVera, Damien](#); [Mueller, Stephanie](#); [nitops@nnsa.doe.gov](#); [pwg@nnsa.doe.gov](#); [USAID Press Officers \(USAID\)](#); [HullRyde, Leslie CDR OSD PA](#); [Hayden, Elizabeth](#); [Brenner, Eliot](#); [Dori.Salcido@hhs.gov](#); [btb8@cdc.gov](#); [Amy.Kudwa@dhs.gov](#); [Andy.Adora@epamail.epa.gov](#)
Cc: [Jensen, Robert R.](#); [Hayden, Caitlin](#); [EAP-P-Office-DL](#)
Subject: RE: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima
Date: Thursday, April 07, 2011 6:15:27 PM
Attachments: [image001.png](#)

We clear...thanks!

Gina Jackson
USAID Press Office
1300 Pennsylvania Ave N.W.
Washington D.C. 20523
phone: (202) 712-1917
fax: (202) 216-3034



USAID
FROM THE AMERICAN PEOPLE

From: [Paradiso, Darragh T](#)
Sent: Thursday, April 07, 2011 3:55 PM
To: [LaVera, Damien](#); [Mueller, Stephanie](#); [nitops@nnsa.doe.gov](#); [pwg@nnsa.doe.gov](#); [USAID Press Officers \(USAID\)](#); [Jackson, Gina \(LPA/AA\)](#); [HullRyde, Leslie CDR OSD PA](#); [Elizabeth.Hayden@nrc.gov](#); [Eliot.Brenner@nrc.gov](#); [Dori.Salcido@hhs.gov](#); [btb8@cdc.gov](#); [Amy.Kudwa@dhs.gov](#); [Andy.Adora@epamail.epa.gov](#)
Cc: [Jensen, Robert R.](#); [Hayden, Caitlin](#); [EAP-P-Office-DL](#)
Subject: SHORT FUSE CLEARANCE: IA Fact Sheet on Cooperation at Fukushima
Importance: High

Good afternoon --

Please clear this interagency fact sheet on U.S.-Japan cooperation on the Fukushima nuclear situation, drafted at Embassy Tokyo. The interagency reps in Tokyo have already cleared, but the Embassy has specifically requested Washington clearance.

Ideally, they would like to have this back by this evening our time, so your prompt reply is appreciated. Apologies for the late notice.

If you don't need to clear, please tell me and I'll put you down as "info."

Thank you,
Darragh

Darragh Paradiso
Director, Office of Public Affairs (EAP/P)
Bureau of East Asian and Pacific Affairs
U.S. Department of State
ParadisoDT@state.gov

AL/61

202-647-2149 (Office)

(b)(6)

(Blackberry)

SBU

This email is UNCLASSIFIED.

From: Paradiso, Darragh T
To: Brenner, Eliot; LaVera, Damien; Mueller, Stephanie; nitops@nnsa.doe.gov; pwq@nnsa.doe.gov; USAID Press Officers (USAID); Jackson, Gina (LPA/AA); HullRyde, Leslie CDR OSD PA; Hayden, Elizabeth; Dori.Salcido@hhs.gov; btb8@cdc.gov; Amy.Kudwa@dhs.gov; Andy.Adora@epamail.epa.gov
Cc: Hayden, Caitlin; Jensen, Robert R.; Stout, Jennifer P; EAP-P-Office-DL; Shoemaker, Lori A; PA Japan
Subject: Please share with your front offices and others: National Cathedral event for Japan
Date: Thursday, April 07, 2011 8:05:47 PM
Attachments: [image001.png](#)
[image006.png](#)

Dear Interagency Colleagues,

Since you've all been involved in Japan efforts recently, we wanted to make sure you've seen the below invitation from the National Cathedral. The Cathedral has been working closely with the Embassy of Japan on this event, and Ambassador Fujisaki is scheduled to speak.

Please help us by conveying the invitation to your principals and offices for consideration. This is not a State Department-sponsored event, but we expect a number of our officials to attend.

Thank you,
Darragh

Darragh Paradiso
Director, Office of Public Affairs (EAP/P)
Bureau of East Asian and Pacific Affairs
U.S. Department of State
ParadisoDT@state.gov
202-647-2149 (Office)

(b)(6)

 (Blackberry)

If you're having trouble viewing this email, you may [see it online](#).

Share This: 



FOR IMMEDIATE RELEASE

Contact: Richard Weinberg
(202) 537-5548
rweinberg@cathedral.org

AL/62

National Cathedral to Host Interfaith Prayer Service for Japan

Japanese Ambassador to Participate

Washington, D.C.—Washington National Cathedral has announced that it will host **"A Prayer for Japan,"** an interfaith prayer service in honor of the people of Japan on **Monday, April 11, at 7 pm**. The service will mark one month since the 9.0-magnitude earthquake and resulting tsunami struck there March 11. **His Excellency Ichiro Fujisaki**, Japanese ambassador to the United States, will participate in the service featuring Buddhist, Hindu, Muslim, Jewish, and Christian faith representatives. All are welcome to attend. The service will also be webcast live from the Cathedral's homepage at www.nationalcathedral.org.

"We at the National Cathedral join with people across the nation and around the world in continuing to pray for a country sorely tried in the past month, that its people may be strengthened, and that in the fullness of time they may rebuild their lives," said **Cathedral Dean Samuel T. Lloyd III**, who will provide the invocation at the prayer service.

Who: His Excellency Ichiro Fujisaki, Japanese ambassador to the United States
The Very Rev. Samuel T. Lloyd III, dean of Washington National Cathedral
Buddhist, Hindu, Muslim, Jewish, and Christian faith representatives
Public attendees (open to all)

What: "A Prayer for Japan," interfaith prayer service in honor of the people of Japan, one month following the 9.0-magnitude earthquake and resulting tsunami that struck on March 11

When: Monday, April 11, 7 pm

Where: Washington National Cathedral, 3101 Wisconsin Avenue, NW
(Massachusetts and Wisconsin Avenues, NW)

How: No reservations required; all are welcome to attend

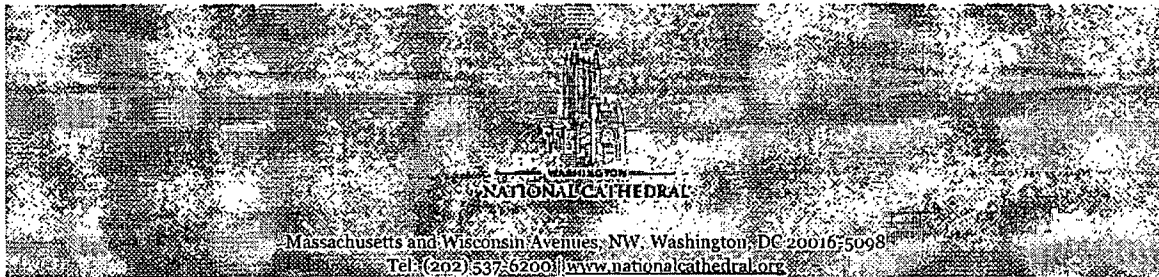
Press: Must RSVP (space is limited) to Richard Weinberg at rweinberg@cathedral.org »

[More information »](#)

About Washington National Cathedral

Washington National Cathedral is a church for national purposes called to embody God's love and to welcome people of all faiths and perspectives. A unique blend of the spiritual and the civic, this Episcopal cathedral is a voice for generous-spirited Christianity and a catalyst for reconciliation and interfaith dialogue to promote respect and understanding.

We invite all people to share in our commitment to create a more hopeful and just world.
[Learn more at www.nationalcathedral.org »](http://www.nationalcathedral.org)



This email was sent to **ParadisoDT@state.gov**. To ensure that you continue receiving our emails, please add us to your address book or safe list.

[manage](#) your preferences | [opt out](#) using **TrueRemove®**.

Got this as a forward? [Sign up](#) to receive our future emails.



This email is UNCLASSIFIED.

From: Hoc, PMT12
To: Brenner, Eliot; Hayden, Elizabeth
Cc: Milligan, Patricia
Subject: Answer to Kyoto News question on relaxation of PARs for US Citizens in Japan
Date: Friday, April 08, 2011 5:05:56 AM

Below is the draft response to the Kyoto News question on relaxation of PARs. Please contact the PMT if questions or comments. Tx greg

Greg Casto
PAAD (11p - 7a)

Q. Will NRC be relaxing its Protective Action Recommendation based on the information provided to the public by the Department of Energy that says the rad levels beyond 25 miles are decreasing and do not support evacuation or relocation?

A. The NRC, in conjunction with other Federal agencies, is reviewing current information on environmental conditions as part of its continued assessment concerning the existing protective action recommendation for US citizens in Japan. Protective action recommendations are based on many factors, including the progression of plant safety system degradation, the actual or projected occurrence of significant releases of radiological material, and the time necessary to provide notice and implementation of protective actions to US citizens in the affected area. The NRC provided recommendations on March 16 based on the deteriorating conditions at Fukushima Daiichi Nuclear Power Plant at the time and a need to provide advance actions in the face of considerable uncertainty about the outcome of events.

Considerable data collection by Japan government organizations and US government support organizations, including radiological monitoring results in the NISA and the US Department of Energy report that you reference, are being evaluated to determine an appropriate and reasonable timeframe for relaxation of the existing protective action recommendations. Comparison to US protective action guidelines regarding radioactive material exposure are ongoing to make sure that returning populations will not exceed those guidelines. Once the NRC and other US government agencies have reasonable assurance that plant conditions will continue to improve and radiological exposure information is thoroughly analyzed, then relaxation of the US recommendations will be considered for the area around the Fukushima Daiichi Nuclear Power Plant.

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

From: takao ikeuchi [mailto:(b)(6)]
Sent: Thursday, April 07, 2011 9:52 PM
To: Milligan, Patricia
Subject: question regarding evacuation area

Dear Patricia Milligan,

AL/63

My name is Takao Ikeuchi from Kyodo News. I am a Japanese news agency's correspondent who met you 2 weeks ago in NRC head office after the meeting.

I am writing this email because I'd like to ask you a question regarding evacuation area around Fukushima nuclear power plant.

As you may know US Department of Energy said "Radiation levels consistently below actionable levels for evacuation or relocation outside of 25 miles" based on their observation.

We can see this comment on their Website. I think this means outside of 25 miles area is safe and no need for evacuation. This is inconsistent with your recommendation for departures of all US citizens who live within 50 miles.

I guess you are considering to revise your recommendation because there is observation data available now unlike March 16th. Or you don't have to revise recommendation at this moment?

I would appreciate if you could give me a comment on that.

Sincerely,
Takao Ikeuchi

=====
Takao Ikeuchi
Staff Correspondent
Kyodo News Washington Bureau

529 14th St.,NW Suite400
Washington D.C. U.S.A. 20045
Tel:(202)347-5767
Fax:(202)393-2342
Mobile (b)(6)
e-mail ikeuchi.takao@kyodonews.jp

From: ANS.HOC@nrc.gov
Subject: ACTION: Commissioners Assistants Briefing Notification
Date: Friday, April 08, 2011 8:58:41 AM
Attachments: [NRC Status Update 4 8 11--0430EDT.pdf](#)

There will be a Commissioners Assistants Briefing given by the NRC HQ at 1000 EDT concerning the Reactor Events in Japan. Call (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter security code (b)(6). You may call 301-816-5164 at this time and follow the voice prompts if you do not wish to receive this notification from our Automatic Notification System.

AL/64

From: McIntyre, David
To: Harrington, Holly; Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth
Subject: RE: Draft read-out 1600 Telecon 04/07/11 Low Level Radioactive Waste Disposition
Date: Friday, April 08, 2011 1:58:49 PM

Indeed. I remember someone - I can't remember who, whether reporter or public caller - quizzing me about this in the very early days after 3/11 during the Ops Ctr frenzy. I think my answer was something like "How should I know?"

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

From: Harrington, Holly
Sent: Friday, April 08, 2011 12:54 PM
To: Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth; McIntyre, David
Subject: FW: Draft read-out 1600 Telecon 04/07/11 Low Level Radioactive Waste Disposition

An issue worth following

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

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Friday, April 08, 2011 12:50 PM
To: LIA06 Hoc; LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA02 Hoc; LIA08 Hoc; LIA12 Hoc; Harrington, Holly; McIntyre, David; Burnell, Scott; ET07 Hoc
Subject: FW: Draft read-out 1600 Telecon 04/07/11 Low Level Radioactive Waste Disposition

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

From: Steele, Jeffrey M CIV SEA 08 NR [mailto:(b)(6)]
Sent: Friday, April 08, 2011 12:49 PM
To: Idar, Deanne J CIV OSD POLICY
Cc: eoc.epahq@epa.gov; Bentz, Julie A.; Eoc.Epahq@epamail.epa.gov; RMTPACTSU_ELNRC; RMTPACTSU_HHS; RMTPACTSU_MLO; RMTPACTSU_SRO; DemingRM@state.gov; NITOPS; Connery, Joyce; PMT03 Hoc; David Bowman; Mustin, Tracy; Szymanski, John; Zerr, Thomas J.; Regan, Sean P.; Bahar, Michael; Komp, Greg R Mr CIV USA HQDA ASO; gornjm@state.gov (b)(6); (b)(6); Munning, Gregory A Capt Code 07, 07; (b)(6); Aponte, Manuel COL OSD POLICY; Lane, Aikojean CIV OSD POLICY; Gross, Laura, CIV, OSD-POLICY; Malone, Stephen C CTR JCS J3; Owens, Janice; LIA03 Hoc; LIA02 Hoc; Tilden, Jay; Hoc, PMT12; (b)(6); RMTPACTSU_DMP; Smith-Kevern, Rebecca; McCaughey, Bill; McGinnis, Edward; Phillip J Finck; Farrand, David E SEA04 04N; Douglas.Tonkay@em.doe.gov; Janet.benini@dot.gov; Curry, Michael R; Roupas, Mark, CIV, OSD-POLICY; Delazaro LtCol Steven J; Terrell, Patrick COL (USA) OSD POLICY; Love, Richard A CIV OSD POLICY
Subject: RE: Draft read-out 1600 Telecon 04/07/11 Low Level Radioactive Waste Disposition

Dr. Idar,

Given that much of the call was spent describing the current radiological status on the ground in Japan, I think a short summary of that status would be useful in the telecon summary. Here is a proposed paragraph.

(b)(5)

AL/65

(b)(5)

(b)(5)

Jeff Steele
Naval Reactors
202-781-6192

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

From: Idar, Deanne J CIV OSD POLICY [mailto:

(b)(6)

Sent: Thursday, April 07, 2011 6:55 PM

To: 'eoc.epahq@epa.gov'; 'Bentz, Julie A.'; 'Eoc.Epahq@epamail.epa.gov'; 'RMTPACTSU_ELNRC';
'RMTPACTSU_HHS'; 'RMTPACTSU_MLO'; 'RMTPACTSU_SRO'; 'DemingRM@state.gov'; 'NITOPS';
'Connery, Joyce'; 'PMT03 Hoc'; 'David Bowman'; 'Mustin, Tracy'; 'Szymanski, John'; 'Zerr, Thomas J.';
'Regan, Sean P.'; 'Bahar, Michael'; Komp, Greg R Mr CIV USA HQDA ASO; 'gornjm@state.gov';

(b)(6)

; Munning, Gregory A Capt Code 07, 07;

(b)(6)

; Aponte, Manuel COL OSD POLICY; Lane, Aikojean CIV OSD POLICY; Gross,
Laura, CIV, OSD-POLICY; Malone, Stephen C CTR JCS J3; 'Owens, Janice'; 'LIA03 Hoc'; 'LIA02 Hoc';
'Tilden, Jay'; 'Hoc, PMT12'; (b)(6); 'RMTPACTSU_DMP@ofda.gov'; 'Smith-
Kevern, Rebecca'; 'McCaughey, Bill'; 'McGinnis, Edward'; 'Phillip J Finck'; Farrand, David E SEA04 04N;
Steele, Jeffrey M CIV SEA 08 NR; 'Douglas.Tonkay@em.doe.gov'; 'Janet.benini@dot.gov'; 'Curry, Michael
R'; Roupas, Mark, CIV, OSD-POLICY; Delazaro LtCol Steven J; Terrell, Patrick COL (USA) OSD POLICY;
Love, Richard A CIV OSD POLICY

Subject: Draft read-out 1600 Telecon 04/07/11 Low Level Radioactive Waste Disposition

UNCLASSIFIED// FOR OFFICIAL USE ONLY

ALCON:

The draft read-out from today's 1600 Telecon on the Low Level Radioactive Waste (LLRW) Disposition is attached (and copied below) for your review. I welcome feedback from the participants on any missing due-outs or key points.

Thanks again to all that were able to participate in our discussion.

Best,

Deanne

<<...>>

Low Level Radioactive Waste (LLRW) Disposition IA (Sub-set) Telecon:

1600-1700 Thursday, 6 April 2011

Participants:

1. NNSA/DOE: EM HQ Office of Disposal Operations Office, General Counsel, NE
2. EPA
3. NRC
4. NSS
5. DoD: DoD LLRW Disposition Advisory Committee Chair, Naval Reactors, OSD(P)/CWMD

Facilitator: Dr. Deanne J. Idar, OSD Policy/Global Strategic Affairs/ CWMD/ CBRN Defense

Due outs:

- * DOE: Verify if DOE AMS assets have had any radioactive levels above clearance criteria; follow-up with Julie Bentz, NSS
- * NRC: provide DOS POCs information to OSD(P)/CWMD; CWMD will distribute to DoD LLRW Disposition Advisory Committee Chair
- * NSS: facilitate connection to DOS contacts for OSD(P)/CWMD

Agenda

1. Roll Call
2. Review of 4 questions posed by DoD LLRW Disposition Advisory Committee

(b)(5)

3. Wrap up

Meeting Summary:

The objective of today's telecon was to assist the DoD in developing the appropriate guidance to address any regulatory requirements for the appropriate disposition of LLWR generated by DoD operations in support of Operation Tomodachi OCONUS and CONUS. The 4 questions identified above were reviewed. Key points follow:

(b)(5)

(b)(5)

* See background NRC regulations information provided by Ms. Janice Owens, NRC, regarding general license for import, and definitions as follows.

§ 110.27 General license for import.

(a) Except as provided in paragraphs (b) and (c) of this section, a general license is issued to any person to import byproduct, source, or special nuclear material if the U.S. consignee is authorized to receive and possess the material under a general or specific NRC or Agreement State license issued by the Commission or a State with which the Commission has entered into an agreement under Section 274b. of the Atomic Energy Act.

(b) The general license in paragraph (a) of this section does not authorize the import of more than 100 kilograms per shipment of source and/or special nuclear material in the form of irradiated fuel.

(c) Paragraph (a) of this section does not authorize the import under a general license of radioactive waste.

(d) A person importing formula quantities of strategic special nuclear material (as defined in § 73.2 of this chapter) under this general license shall provide the notifications required by § 73.27 and § 73.72 of this chapter.

(e) A general license is issued to any person to import the major components of a utilization facility as defined in § 110.2 for end- use at a utilization facility licensed by the Commission.

(f) Importers of radioactive material listed in Appendix P to this part must provide the notifications required by § 110.50.

[51 FR 47208, Dec. 31, 1986, as amended at 56 FR 38336, Aug. 13, 1991; 58 FR 13003, Mar. 9, 1993; 60 FR 37564, July 21, 1995; 61 FR 35602, July 8, 1996; 65 FR 70291, Nov. 22, 2000; 68 FR 31589, May 28, 2003; 70 FR 37991, July 1, 2005; 75 FR 44089, Jul. 28, 2010]

§ 110.2 Definitions.

Radioactive waste, for the purposes of this part, means any material that contains or is contaminated with source, byproduct, or special nuclear material that by its possession would require a specific radioactive material license in accordance with this Chapter and is imported or exported for the

purposes of disposal in a land disposal facility as defined in 10 CFR part 61, a disposal area as defined in Appendix A to 10 CFR part 40, or an equivalent facility; or recycling, waste treatment or other waste management process that generates radioactive material for disposal in a land disposal facility as defined in 10 CFR part 61, a disposal area as defined in Appendix A to 10 CFR part 40, or an equivalent facility. Radioactive waste does not include radioactive material that is-

- (1) Of U.S. origin and contained in a sealed source, or device containing a sealed source, that is being returned to a manufacturer, distributor or other entity which is authorized to receive and possess the sealed source or the device containing a sealed source;
- (2) A contaminant on any non-radioactive material (including service tools and protective clothing) used in a nuclear facility (an NRC- or Agreement State-licensed facility (or equivalent facility) or activity authorized to possess or use radioactive material), if the material is being shipped solely for recovery and beneficial reuse of the non-radioactive material in a nuclear facility and not for waste management purposes or disposal;
- (3) Exempted from regulation by the Nuclear Regulatory Commission or equivalent Agreement State regulations;
- (4) Generated or used in a U.S. Government waste research and development testing program under international arrangements;
- (5) Being returned by or for the U.S. Government or military to a facility that is authorized to possess the material; or
- (6) Imported solely for the purposes of recycling and not for waste management or disposal where there is a market for the recycled material and evidence of a contract or business agreement can be produced upon request by the NRC.

Note: The definition of radioactive waste in this part does not include spent or irradiated fuel.

Deanne J. Idar, Ph.D.

Senior Science Advisor

OSD(P)-GSA/CWMD/ CBRN Defense Policy

Office: Rm 5C746 Pentagon

Phone: 703-571-2327

Blackberry: (b)(6)

From: Hayden, Elizabeth
To: OPA Resource; Medina, Veronika
Subject: RE: Media- Japanese TV Request: NHK "Project Wisdom"
Date: Friday, April 08, 2011 2:21:00 PM

Tell her we don't participate in debates--Japan related or otherwise.

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

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

From: OPA Resource
Sent: Friday, April 08, 2011 2:11 PM
To: Hayden, Elizabeth
Subject: Media- Japanese TV Request: NHK "Project Wisdom"
Importance: High

Beth,

Mashu Uruta would like to invite a NRC expert to participate in a televise debate either April 28, 29 or 30 regarding the nuclear incident in Japan.

Regards,
Veronika

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

From: Mashu Uruta [<mailto:s01619-uruta@nhk.or.jp>]
Sent: Friday, April 08, 2011 12:05 AM
To: OPA Resource
Cc: s01619-ijima@nhk.or.jp
Subject: Japanese TV Request: NHK "Project Wisdom"

Dear Sir/Madam,

My name is Mashu Uruta, and I work for NHK program called "Project Wisdom." NHK is the largest public broadcasting company in Japan, similar to PBS or BBC. Our program, "Project Wisdom" is a 45 minutes (two 45 minutes debate sessions, 90 minutes total) international debate program where we connect scholars and experts from all over the world via video phones to have an extensive debate in a certain topic. Our web-site is as follows,
http://www.nhk.or.jp/wisdom/index_en.html

I am contacting you because our next topic is "How can Japan rebuild from the recent disaster and what can we do to make the safe nuclear energy?" We thought that it would be very important to invite a panelist from NRC in the next debate. I was wondering if you can introduce and connect us to a member of NRC who would be able to participate in our next debate.

The date and time of the next debate is one day on either April 28th or April 29th or April 30th, for about two hours (one hour for set-up/mic test, and 45 minutes for the actual debate), and the time differs by where the participants is because of the time difference with Japan. We would be

AL/66

compensating all the participants for their time (50,000 Japanese Yen). On the day of the debate, our local coordinator will provide an every need of a participant (transportation and such).

We are also inviting experts from IAEA, ASN, HSE and other universities around the world in our program.

We believe that it is very important and meaningful to have a panelist from NRC since the issue of nuclear concern is deep and widespread in Japan. It will be a great help for the Japanese public to learn from a member of NRC about the situation of Fukushima nuclear plant and the future of the safe nuclear energy.

Please let me know if you can help me with this important project. I understand that you may be very busy at this time, but if you could help us, it will be a valuable educational program for the Japanese public. I thank you again for your time and consideration.

Yours Truly,

Mashu Uruta

Mashu Uruta

Program Director

NHK PROJECT WISDOM

150-8001 Shibuya-ku Jinnan 2-2-1

Tel.03-5455-4904 fax.03-3481-4881

Cell [redacted] (b)(6)

<mailto:s01619-uruta@nhk.or.jp>

From: Medina, Veronika
To: Hayden, Elizabeth
Subject: RE: Media - Jackzo Interview - CNN
Date: Friday, April 08, 2011 2:29:13 PM

Ok. I'll send the email from OPA. Resource.

From: Hayden, Elizabeth
Sent: Friday, April 08, 2011 2:29 PM
To: Medina, Veronika
Subject: RE: Media - Jackzo Interview - CNN

Veronika,

Suggest you reply with our standard since this really has to do with the Japan accident.
Can you send the message from OPA.Resource?

"The NRC is unable to accommodate interview requests at this time; I will place your organization on the list for future opportunities.

Please monitor the NRC home page or sign up for the listserv for any press releases.

News releases are available through a free subscription at the following Web address:
<http://www.nrc.gov/public-involve/listserver.htm>. 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. "

*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: Medina, Veronika
Sent: Friday, April 08, 2011 2:21 PM
To: Hayden, Elizabeth
Subject: RE: Media - Jackzo Interview - CNN

Her number is (b)(6); her email is: Dana.garrett@turner.com

Veronika

From: Hayden, Elizabeth
Sent: Friday, April 08, 2011 2:12 PM
To: Medina, Veronika
Subject: RE: Media - Jackzo Interview - CNN

AL/67

Please give me her/his telephone number.

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: Medina, Veronika
Sent: Tuesday, April 05, 2011 3:48 PM
To: Hayden, Elizabeth
Subject: Media - Jackzo Interview - CNN
Importance: High

Beth,

Dana Garrett just called me back and she wants to ask the Chairman about ground water containment and leakage issues, how has the NRC manage the constant criticism from different groups around the country including the Union of Concern Scientists and what are the health impacts for people living near nuclear power plants.

She told me that she already spoke with Neil Sheehan about this request.

Regards,
Veronika

From: Hayden, Elizabeth
Sent: Tuesday, April 05, 2011 2:12 PM
To: Medina, Veronika
Subject: RE: Media - Jackzo Interview - CNN

OK. Perhaps the other CNN interview request overtakes this one.

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: Medina, Veronika
Sent: Tuesday, April 05, 2011 2:07 PM
To: Hayden, Elizabeth
Cc: Janbergs, Holly
Subject: RE: Media - Jackzo Interview - CNN

I called and emailed Dana Garrett requesting more information, but haven't hear back from her yet.

Veronika

From: Hayden, Elizabeth
Sent: Tuesday, April 05, 2011 2:05 PM
To: Medina, Veronika
Cc: Janbergs, Holly
Subject: RE: Media - Jackzo Interview - CNN

Did you find out what the other interview request from CNN was for?

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: Medina, Veronika
Sent: Tuesday, April 05, 2011 1:56 PM
To: Hayden, Elizabeth
Subject: Media - Jackzo Interview - CNN
Importance: High

Beth,

Here's another interview request with the Chairman.

Regards,
Veronika

From: Janbergs, Holly
Sent: Tuesday, April 05, 2011 1:53 PM
To: Medina, Veronika
Subject: Jackzo Interview - CNN

David Fitzpatrick from CNN is producing a taped segment for the In the Arena broadcast Tuesday evening. He'd like to do an pre-recorded, on-camera interview with Chairman Jaczko on Monday or Tuesday in DC. His topics include spent fuel rods, Yucca Mountain, and similar concerns. I told him the Chairman was out of the country, but said that someone would get back to him on specifics.

(b)(6)

David.fitzpatrick@turner.com

Beth Janbergs
Public Affairs Assistant
301-415-8211

From: Hayden, Elizabeth
To: "Daly, Matthew"
Bcc: Brenner, Eliot; McIntyre, David
Subject: RE: Shutdown - NRC
Date: Friday, April 08, 2011 3:32:00 PM

More specifically, in the event there is a shutdown that outruns our existing funds, and the situation in Japan requires continued response, we will staff the Operations Center and the team in Japan with additional emergency "excepted employees" who will be exempt from the furlough.

Beth Hayden

From: Hayden, Elizabeth
Sent: Friday, April 08, 2011 2:55 PM
To: 'Daly, Matthew'; Brenner, Eliot; Burnell, Scott
Subject: RE: Shutdown - NRC

Matthew,
There is a list of excepted functions on p. 6 of Management Directive 4.5 Handbook, where resident inspectors would be maintained during any shutdown. <http://www.nrc.gov/reading-rm/doc-collections/management-directives/volumes/2011-md-4-5.pdf> . You can reach OPA at 301-415-8200 or OPA.Resource@nrc.gov .

Beth Hayden

From: Daly, Matthew [mailto:MDaly@ap.org]
Sent: Friday, April 08, 2011 1:33 PM
To: Brenner, Eliot; Burnell, Scott
Cc: Hayden, Elizabeth
Subject: Shutdown - NRC

Hi All,

I am writing to other agencies with a similar question, but given NRC's responsibilities bit is especially we learn what contingencies are planned in the event of a government shutdown.

- _ Will inspectors continues?
- _ Will on-site employees remain on their post?
- _ What other information can you tell us to assure that the 104 commercial reactors are safe?

Also, an importantly, if shutdown does happen, what is best way for us (i.e. me) to stay in touch with Public Affairs office 24/7?

Thanks.
Matthew

Matthew Daly

A4/68

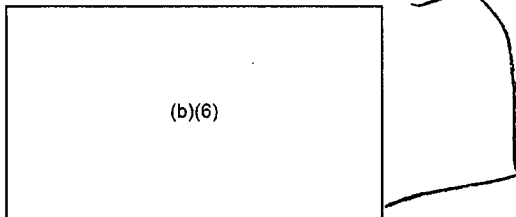
Environment/Energy Correspondent
The Associated Press
1100 13th Street NW, Suite 700
Washington, DC 20005
202-641-9541 direct
(b)(6) cell
<http://twitter.com/MatthewDalyWDC>

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[IP_US_DISC]msk dccc60c6d2c3a6438f0cf467d9a4938

From: Sheehan, Neil
To: Hayden, Elizabeth; Akstulewicz, Brenda
Subject: Japan OT
Date: Thursday, March 24, 2011 11:31:31 AM

Beth/Brenda,

Here is my Japan-related OT:



I was able to log this in HMRS under the Japan/tsunami TAC code for every day except 3/13. I'm not sure why that is other than 3/13 was a Sunday. Because all of my time last week was devoted to Japan-related media questions, I logged all of my time under that code.

Thanks,
Neil

AE/69

From: Couret, Ivonne
To: Akstulewicz, Brenda; Hayden, Elizabeth
Subject: T&L COURET OT Japan
Date: Thursday, March 24, 2011 11:33:39 AM

3/11
3/12

313
3/14
3/15
3/17
3/18
3/19
3/21
3/23

(b)(6)

Ivonne L. Couret
Public Affairs Officer
Office of Public Affairs
Media Desk
opa.resource@nrc.gov
301-415-8200

Visit our online photo gallery. Incorporate graphics and photographs to tell your story!
<http://www.nrc.gov/reading-rm/photo-gallery/>

2010-2011 Information Digest - Where you can find NRC Facts at a Glance
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

AL/70

From: Wiggins, Jim
To: Brenner, Eliot; Hayden, Elizabeth
Subject: ACTION: MTG IN THE OPS CTR TOMORROW ON RELEASE DECISION RE: RST ASSESSMENTS
Date: Wednesday, April 06, 2011 1:15:52 PM
Attachments: 03-31-11 1200 RST Assessment Document REV 1 .docx
03-26-2100 Final RST assessment of Daiichi Units document.docx

See this...It's important that one of you come to this. (Also, that would allow Scott to take his deserved time off instead of needing to be here to deal with a problem not his doing.)

From: LIA08 Hoc
Sent: Wednesday, April 06, 2011 1:06 PM
To: LIA08 Hoc; Leeds, Eric; Burns, Stephen; Nichols, Russell; Powell, Amy; Schmidt, Rebecca; LIA06 Hoc; ET05 Hoc; ET07 Hoc; Wiggins, Jim; McGinty, Tim; Boger, Bruce
Subject: Potential Release of RST Assessment (Subject of 4/6 NY Times Article)
When: Thursday, April 07, 2011 9:00 AM-10:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where: HQ EOC (4th floor TWFN) ET Room

When: Thursday, April 07, 2011 9:00 AM-10:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where: HQ EOC (4th floor TWFN) ET Room

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

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

The Liaison Team at the HQ Emergency Operations Center has been asked by the Executive Team to schedule a special meeting to (1) discuss the merits of releasing (to the public) two versions of an RST Assessment document (attached for your review) and (2) come to a decision on this point.

AL/71

(b)(5)

(b)(5)

(b)(5)

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(b)(5)

From: Burnell, Scott
To: McIntyre, David; Sheehan, Neil; Hayden, Elizabeth; Harrington, Holly
Subject: RE: Reporter Call - FYI
Date: Wednesday, April 06, 2011 2:08:42 PM

(b)(5)

From: McIntyre, David
Sent: Wednesday, April 06, 2011 2:08 PM
To: Sheehan, Neil; Hayden, Elizabeth; Burnell, Scott; Harrington, Holly
Subject: RE: Reporter Call - FYI

How does one comply with an earthquake?

From: Sheehan, Neil
Sent: Wednesday, April 06, 2011 2:07 PM
To: Hayden, Elizabeth; Burnell, Scott; McIntyre, David; Harrington, Holly
Subject: FW: Reporter Call - FYI

Be on the lookout for a reporter not afraid to shade the truth.

From: Screnci, Diane
Sent: Wednesday, April 06, 2011 2:05 PM
To: Sheehan, Neil; Heinly, Justin
Cc: Bellamy, Ronald; Kern, David
Subject: RE: Reporter Call - FYI

I didn't either.

DIANE SCRENCI
SR. PUBLIC AFFAIRS OFFICER
USNRC, RI
610/337-5330

From: Sheehan, Neil
Sent: Wednesday, April 06, 2011 2:05 PM
To: Heinly, Justin; Screnci, Diane
Cc: Bellamy, Ronald; Kern, David
Subject: RE: Reporter Call - FYI

I didn't talk to him.

From: Heinly, Justin
Sent: Wednesday, April 06, 2011 2:04 PM
To: Screnci, Diane; Sheehan, Neil
Cc: Bellamy, Ronald; Kern, David

AL/72

Subject: Reporter Call - FYI

Diane/Neil,

I just got a call from Jerome Burich of Fox news and he was inquiring if TMI was 'earthquake compliant'. I forwarded him onto HQ OPA (301-415-8200) since he stated that he already discussed the issue with one of you. I took down his contact information if you would like to reach out to him if necessary.

Just an FYI.

Justin Heinly
TMI RI

From: Burnell, Scott
To: Hayden, Elizabeth
Cc: Brenner, Eliot
Subject: RE: Internal NRC docs show doubts about US nuke safety
Date: Wednesday, April 06, 2011 2:40:10 PM

I've been in all those conversations and I can place them in the proper context, including "welcoming differing opinions." In fact, those documents come from the internal staff review process.

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 2:37 PM
To: Burnell, Scott
Cc: Brenner, Eliot
Subject: RE: Internal NRC docs show doubts about US nuke safety

(b)(5)

Beth

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 2:13 PM
To: Hayden, Elizabeth
Subject: FW: Internal NRC docs show doubts about US nuke safety

I plan to push back on this strongly, based on my understanding of the issues.

From: scott.malone@thomsonreuters.com [mailto:scott.malone@thomsonreuters.com]
Sent: Wednesday, April 06, 2011 1:57 PM
To: Burnell, Scott
Subject: FW: Internal NRC docs show doubts about US nuke safety

Here's the release they sent out, which links to the documents.

Scott Malone
Reuters News, Boston Bureau
+1-617-856-4342

From: Sarah Goldberg [mailto:Sgoldberg@ucsusa.org]
Sent: Wednesday, April 06, 2011 11:37 AM
To: Malone, Scott (M Edit Ops)
Subject: UCS: Internal NRC docs show doubts about US nuke safety

FOR IMMEDIATE RELEASE
CONTACT: Elliott Negin, 202-331-5439

INTERNAL NRC DOCUMENTS REVEAL DOUBTS ABOUT MEASURES TO ENSURE U.S. PLANTS

AL/73

SURVIVE FUKUSHIMA-TYPE EVENTS

WASHINGTON (April 6, 2011) – In the weeks following the Fukushima accident, Nuclear Regulatory Commission (NRC) and nuclear industry officials have been asserting that U.S. nuclear plants are better prepared to withstand a catastrophic event like the March 11 earthquake and tsunami than Japanese plants because they have additional safety measures in place.

However, according to internal NRC documents (links provided below) released today by the Union of Concerned Scientists (UCS), there is no consensus within the NRC that U.S. plants are sufficiently protected. The documents indicate that technical staff members doubt the effectiveness of key safety measures adopted after the September 11, 2001, terrorist attacks.

UCS obtained the documents on March 25 from a Freedom of Information Act (FOIA) request it made a month before the Japanese disaster.

"While the NRC and the nuclear industry have been reassuring Americans that there is nothing to worry about -- that we can do a better job dealing with a nuclear disaster like the one that just happened in Japan -- it turns out that privately NRC senior analysts are not so sure," said Edwin Lyman, a physicist with the UCS Global Security Program and an expert in nuclear plant design.

NRC and industry officials recently testified before Congress that U.S. reactors are fully prepared for the worst. For example, at a hearing hosted by the Senate Energy and Water Appropriations Subcommittee on March 30, NRC Chairman Gregory Jaczko testified: "As a result of the events of September 11, 2001, we identified important pieces of equipment, that regardless of the cause of a significant fire or explosion at a plant, the NRC requires licensees to have available and staged in advance, as well as new procedures and policies to help deal with a severe situation."

Likewise, William Levis, the president and COO of the Public Service Enterprise Group, which owns two nuclear plants in New Jersey, told the subcommittee that "U.S. nuclear plant designs and operating practices since 9/11 are designed to mitigate severe accident scenarios such as aircraft impact, which include the complete loss of off-site power and all on-site emergency power sources and loss of large areas of the plant."

NRC calls these post-9/11 procedures "B.5.b measures," referencing the section of the compensatory-measures order the agency issued in 2002 to all reactor licensees. The agency codified them in its regulations in 2009 in a document titled CFR 50.54(hh)(2), but because their details are security-related, they are not publicly available.

At the March 30 hearing, both Jaczko and Levis sounded confident that B.5.b measures would protect U.S. reactors from the kind of disaster that befell the Fukushima Daiichi nuclear complex, which lost off-site and on-site power for an extended period, eventually leading to the loss of all cooling. Internal NRC documents obtained by UCS tell a different story.

In February 2011, UCS filed a FOIA request for all information associated with a secretive NRC program known as the "State of the Art Reactor Consequence Analyses." SOARCA, according to the NRC, is "a research effort to realistically estimate the outcomes of postulated severe accident scenarios that might cause a nuclear power plant to release radioactive material into the environment. The SOARCA project applies many years of national and international nuclear safety research, and incorporates the improvements in plant design, operation and accident management to achieve a more realistic evaluation of the consequences associated with such accidents." The NRC also stated that SOARCA takes into account enhancements required by NRC after 9/11 -- the B.5.b measures.

The SOARCA program, which the agency initiated in 2006, focused on two plants: Surry in Virginia and Peach Bottom in Pennsylvania. Coincidentally, Peach Bottom is a Mark I boiling water reactor (BWR) like Fukushima Daiichi reactors 1 through 4. One of the hypothetical accidents that the SOARCA program analyzed was a station blackout at Peach Bottom where the plant failed to recover power before the backup batteries ran out -- the very situation that occurred at Fukushima. That

analysis would be extremely useful to understand what happened at Fukushima. However, the NRC has withheld nearly all documents related to SOARCA from the public.

In most Mark I BWRs experiencing a station blackout, Lyman explained, a cooling system that runs on battery power, known as the Reactor Core Isolation Cooling system, or RCIC, is available. But when the battery runs down -- after eight hours or less -- the RCIC will stop operating. If plant workers do not restore alternating current power by then, no cooling systems will be available and the fuel in the reactor will overheat and eventually begin to melt. Most experts believe that is what happened at Fukushima Daiichi units 1 through 3.

According to the documents obtained by UCS, NRC's B.5.b measures contain unspecified strategies to continue operating the RCIC even after battery power is lost. However, the documents make clear that there are disagreements between NRC senior reactor analysts who work in NRC's regional offices under the Office of Nuclear Reactor Regulation and the staff conducting the SOARCA project, who are in the agency's Office of Research.

In particular, one NRC staff email exchange, dated July 28, 2010, described senior analysts' objections to SOARCA as follows: "One concern has been that SOARCA credits certain B5b mitigating strategies (such as RCIC operation w/o DC power) that have really not been reviewed to ensure that they will work to mitigate severe accidents. Generally, we have not even seen licensees credit these strategies in their own [probabilistic risk assessments] but for some reason the NRC decided we should during SOARCA. My recollection is that [Region I senior reactor analysts] in particular have been vocal with their concerns on SOARCA for several years, probably because Peach Bottom is one of the SOARCA plants."

In other words, senior reactor analysts who work directly with the Peach Bottom Mark I BWR apparently do not have faith in the effectiveness of the very B.5.b measures that the NRC and nuclear industry officials are touting as a reason why the United States is better prepared to deal with a Fukushima-like event than Japan.

Another (undated) document reinforces this concern: "The application of 10 CFR 50.54(hh) [2009 regulations] mitigation measures still concerns a number of staff in [the Office of Nuclear Reactor Regulation]. The concern involves the manner in which credit is given to these measures such that success is assumed.... 10 CFR 50.54(hh) mitigation measures are just equipment on-site that can be useful in an emergency when used by knowledgeable operators if post-event conditions allow. If little is known about these post-event conditions, then assuming success is speculative."

"If we are going to have any confidence that U.S. plants are safe, the NRC and the industry has to be completely open and honest about what they know and what they don't know," said Lyman. "They are doing Americans a disservice if they are saying publicly that these untested measures are effective when privately they are expressing doubts that they will work."

Note: UCS also released another NRC email today that briefly discusses the schedule of the SOARCA analysis.

###

The Union of Concerned Scientists is the leading U.S. science-based nonprofit organization working for a healthy environment and a safer world. Founded in 1969, UCS is headquartered in Cambridge, Massachusetts, and also has offices in Berkeley, Chicago and Washington, D.C. For more information, go to www.ucsusa.org.

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From: Hayden, Elizabeth
To: Burnell, Scott
Cc: Brenner, Eliot
Subject: RE: I have to ask again...
Date: Wednesday, April 06, 2011 3:13:00 PM

And that's admirable---4 gold stars and duly noted!

Beth

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 3:04 PM
To: Hayden, Elizabeth
Cc: Brenner, Eliot
Subject: RE: I have to ask again...

OK, I just had to make the offer.

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 3:03 PM
To: Burnell, Scott
Cc: Brenner, Eliot
Subject: RE: I have to ask again...

(b)(5)

I'll put Eliot to work on this stuff if I need to! He may be in for part of Friday to help out anyway.

Beth

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 2:15 PM
To: Hayden, Elizabeth
Subject: I have to ask again...
Importance: High

Beth;

We've got all this assessment stuff, the Unit 2 crap from Markey and now the UCS SOARCA distractions.

Yes, Brian's talented but there's only so much that can be read off of talking points or Q&A.

Please let me know if you need me here tomorrow and Friday.

Scott

A 4174

From: Burnell, Scott
To: Hayden, Elizabeth; Brenner, Eliot
Subject: FW: This morning's hearing
Date: Friday, April 08, 2011 10:35:34 AM

(b)(5)

From: Dorell, Oren [odorell@usatoday.com]
Sent: Thursday, April 07, 2011 2:42 PM
To: Burnell, Scott
Cc: OPA Resource
Subject: RE: This morning's hearing

Scott,

Thanks for your help yesterday clarifying details that emerged in yesterday's hearing on the Hill. Would you be available today for a quick chat about the radiation floating over the USA from Fukushima and what risk it poses to Americans?

The Institute for Energy and Environmental Research says more stringent radiation monitoring is necessary because the amounts of radiation are within limits that cause cancer in large populations, and they knock the NRC's characterization of these amounts as basically harmless.

According to their latest press release: "While the NRC is saying the 620 millirem (referring to this [NRC link](#)) a year on average has not been shown to cause harm, the EPA is saying that about one-third of this total average annual dose is attributable to indoor radon, which is responsible for thousands of cancer deaths every year," said Dr. Arjun Makhijani. "The NRC statement is an appalling misrepresentation of the science that underlies its own regulations as well as published statements on radon risks by the EPA. Using the 2006 National Academies risk estimates for cancer, 620 millirem per year to each of the 311 million people in the United States would eventually be associated with about 200,000 cancers each year; about half of them would be fatal."

I can send you the entire press release if you want and haven't already seen it.

Thanks,
Oren.
703-854-3323

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 3:57 PM
To: Dorell, Oren
Subject: RE: This morning's hearing

Oren;

Regarding questions following the House hearing this morning, the NRC has the following statement:

There continues to be a great deal we don't know regarding the situation at Fukushima.

AL/75

One thing we do know with reasonable certainty is that the core of Unit 2 has been damaged. Beyond that, the NRC speculates there are possible leakage paths from the reactor vessel into the drywell that could account for reports of high radiation levels in the drywell. The NRC does not believe the reactor vessel has given way, and we do believe practically all of the core remains in the vessel. These two beliefs drive our continuing recommendation that every available method should be used to add fresh water to the Unit 2 reactor vessel and continue cooling the core.

Please include opa.resource@nrc.gov on any e-mails with additional questions. Thank you.

Scott Burnell
Public Affairs Officer
Nuclear Regulatory Commission

Riley (OCA), Timothy

Sent: Thursday, March 24, 2011 10:25 AM
Subject: Modification Resolution

10:24:52 Mail Conflict Resolution
10:24:52 Subject: {SU:Earthquake/tsunami 2.206 petitions}
10:24:52 EntryID: {CB:70,
LPB:00000000FA7FA7FE2EF945409920BEF712BFFC9D0700499C2FC6BB962446994CA8682D8ADF3300178D7939BF00002B99C
8FC0E9CB14D9BAD822B6E7B17E00006962CF25B0000}
10:24:52 Checking local modifications
10:24:52 Overwrite property: 0x0063000B
10:24:52 Overwrite property: 0x0C17000B
10:24:52 Adding Flagging Properties property: 0x0E2B0003
10:24:52 Delete property: 0x10910040
10:24:52 Compare property: 0x10920003
10:24:52 Overwrite named property: 0x8530001F
10:24:52 Overwrite named property: 0x85520003
10:24:52 Overwrite named property: 0x8554001F
10:24:52 Merge named property: 0x85A00040
10:24:52 Merge named property: 0x85A1001F
10:24:52 Merge named property: 0x81040040
10:24:52 Merge named property: 0x81040040
10:24:52 Merge named property: 0x85160040
10:24:52 Merge named property: 0x85160040
10:24:52 Merge named property: 0x81050040
10:24:52 Merge named property: 0x81050040
10:24:52 Merge named property: 0x85170040
10:24:52 Merge named property: 0x85170040
10:24:52 Merge named property: 0x81020005
10:24:52 Merge named property: 0x81020005
10:24:52 Getting remote properties
10:24:52 Checking remote modifications
10:24:52 Compare Flag Status property: 0x10900003
10:24:52 Local{L:2}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Using local: {L:2}
10:24:52 Compare (use lower) property: 0x10950003
10:24:52 Local{L:6}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Using local: {L:6}
10:24:52 PR_TODO_ITEM_FLAGS (merge) property: 0x0E2B0003
10:24:52 Local{L:1}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Remote not found, using local
10:24:52 Compare (use higher) named property: 0x811C000B
10:24:52 Local{B:FALSE}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Using local: {B:FALSE}
10:24:52 Compare (use higher) named property: 0x81010003
10:24:52 Local{L:0}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Using local: {L:0}
10:24:52 Compare (todo title) named property: 0x85A4001F
10:24:52 Local{SU:Earthquake/tsunami 2.206 petitions}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Using local
10:24:52 Compare (conflict) property: 0x10920003
10:24:52 Local{L:0}
10:24:52 Remote{Error (0x8004010F)}
10:24:52 Not equal (conflict) property: 0x10920003
10:24:52 Local modification: {D:24, M:3, Y:2011 H:14, M:23, S:55, MS:48}
10:24:52 Remote modification: {D:24, M:3, Y:2011 H:14, M:23, S:57, MS:501}
10:24:52 Conflict generated, remote item is winner

From: Foggie, Kirk
Sent: Friday, March 25, 2011 2:19 AM
To: LIA03 Hoc
Subject: RE: Draft Talking Points

It is the latter. I didn't qc it.

Thanks.

kirk

From: LIA03 Hoc
Sent: Friday, March 25, 2011 2:16 AM
To: Foggie, Kirk
Subject: RE: Draft Talking Points

Kirk,

(b)(5)

--E.

From: Foggie, Kirk
Sent: Friday, March 25, 2011 2:04 AM
To: LIA03 Hoc
Cc: Casto, Chuck; Monninger, John; Smith, Brooke
Subject: RE: Draft Talking Points

Bullets 1 and 2 are fine.

(b)(5)

edits and additions to bullets 3, 4, and 5

(b)(5)

Chuck and John have blessed these TPs.

From: LIA03 Hoc
Sent: Friday, March 25, 2011 1:26 AM
To: LIA03 Hoc; Foggie, Kirk
Subject: RE: Draft Talking Points

AL/m

Rev 1, below:

(b)(5)

From: LIA03 Hoc
Sent: Friday, March 25, 2011 1:07 AM
To: Foggie, Kirk
Cc: Smith, Brooke
Subject: Draft Talking Points

Kirk, please let me know asap what you think, any modifications, etc. (maybe some more stakeholders on #1?) Everyone would like to see these immediately:

(b)(5)

Big thanks!

From: Leeds, Eric
To: Johnson, Michael
Subject: RE: Request for a telephone meeting Mike Weightman and Chairman Jaczko
Date: Friday, March 25, 2011 1:55:30 PM

I agree and will push for a tiger team - expedited action. Thanks!

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

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

From: Johnson, Michael
Sent: Thursday, March 24, 2011 8:52 PM
To: Leeds, Eric
Subject: FW: Request for a telephone meeting Mike Weightman and Chairman Jaczko

I think Diane is right. Are you willing to suggest a more aggressive approach to this than the normal CNRA pace?

Mike

From: Diane.JACKSON@oecd.org [Diane.JACKSON@oecd.org]
Sent: Thursday, March 24, 2011 5:59 PM
To: Johnson, Michael
Subject: RE: Request for a telephone meeting Mike Weightman and Chairman Jaczko

(b)(4),(b)(5)

Diane

From: Johnson, Michael [Michael.Johnson@nrc.gov]
Sent: Thursday, March 24, 2011 12:11 PM
To: JACKSON Diane, NEA/SURN
Subject: FW: Request for a telephone meeting Mike Weightman and Chairman Jaczko

Diane please don't share this email.

(b)(4),(b)(5)

From: Gail.Scowcroft@hse.gsi.gov.uk [mailto:Gail.Scowcroft@hse.gsi.gov.uk] On Behalf Of Mike.Weightman@hse.gsi.gov.uk
Sent: Thursday, March 24, 2011 6:09 AM
To: Stahl, Eric
Cc: Leeds, Eric; Johnson, Michael; Lindsey.Moore@hse.gsi.gov.uk
Subject: Request for a telephone meeting Mike Weightman and Chairman Jaczko
Importance: High

Hi Eric
Hope you are well.
Would it be possible for the message below from Mike to be passed to Chairman Jaczko office.? I don't appear to have the Chairman's contact details.
Many thanks
Regards, Gail
for Mike Weightman

Good Morning

I write from the office of Dr Mike Weightman, would it be possible for Mike to have a telephone conversation/ meeting with Chairman Jaczko today for approx 30minutes?

(b)(4),(b)(5)

Look forward to hearing from you

Kind Regards
Gail Scowcroft
PA to Dr Mike Weightman

A 4/78

HM Chief Inspector Nuclear Installations
Nuclear Directorate
Tel: 00 44 151 951 4170
email: gail.scowcroft@hse.gsi.gov.uk

From: Hayden, Elizabeth [mailto:Elizabeth.Hayden@nrc.gov]
Sent: 23 March 2011 22:16
To: 'wgpcnews@oecd-nea.org'
Subject: [wgpcnews] Latest USNRC Press Release on Japan Assessment
Dear all,

For your information, here is our press release announcing NRC's plans for reviewing the Japan event. <http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-055.pdf>

Regards,
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

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Riley (OCA), Timothy

From: McIntyre, David
Sent: Wednesday, April 06, 2011 11:01 AM
To: Burnell, Scott; Powell, Amy; Riley (OCA), Timothy; Decker, David
Subject: RE: Markey statement at today's nuclear hearing

(b)(5)

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 10:57 AM
To: Powell, Amy; Riley (OCA), Timothy; Decker, David
Cc: McIntyre, David
Subject: FW: Markey statement at today's nuclear hearing
Importance: High

Another Markey item to track down ASAP. Thanks.

From: Lobsenz, George [<mailto:George.Lobsenz@ihs.com>]
Sent: Wednesday, April 06, 2011 10:56 AM
To: McIntyre, David; Burnell, Scott
Subject: FW: Markey statement at today's nuclear hearing

Hi guys--please see Markey statement below that he says he has been told by NRC that fuel has "probably" melted through reactor pressure vessel at Fukushima Unit 2. Can you confirm or deny this statement by Markey? Any comment on this would be welcome.

George

From: Barry, Giselle [<mailto:Giselle.Barry@mail.house.gov>]
Sent: Wednesday, April 06, 2011 10:49 AM
To: Barry, Giselle
Subject: Markey statement at today's nuclear hearing

FOR IMMEDIATE RELEASE
April 6, 2011

Contact: Giselle Barry 202-225-2836, Eben Burnham-Snyder 202-225-6065

Statement of Congressman Edward J. Markey (D-Mass.)
"The U.S. Government Response to the Nuclear Power Plant Incident in Japan"
Subcommittee on Oversight and Investigations
April 6, 2011

"On March 28, 1979, almost exactly 32 years ago, a partial core meltdown at the Three Mile Island nuclear power plant terrified the nation and caused a full-scale re-evaluation of the nuclear industry in our country.

AL/79

"On April 26, 1986, almost exactly 25 years ago, the meltdown caused by the Chernobyl nuclear power plant spewed highly radioactive smoke all over Europe. Again, the world was appalled, and promised increased safety.

"Today, we see that we are just as helpless when faced with nuclear disaster as we were 25 and 32 years ago.

"The cores of at least two of the Japanese reactors are severely damaged. I have been informed by the Nuclear Regulatory Commission that the core of Unit Two has gotten so hot that part of it has probably melted through the reactor pressure vessel.

"To bring the reactors and their spent fuel pools under control, the Japanese have had to resort to sending young workers in to risk their lives as they operate what amount to giant water guns.

"To assess and then sop up the radioactive water that has begun spewing into the ocean, they are relying on the use of bath salts and diapers.

"Just like the use of pantyhose and golf balls to stop last year's oil spill, the Japanese have been compelled to try a "nuclear junk shot" in desperate attempts to stop an environmental calamity.

"Yet the Nuclear Regulatory Commission insists that our systems are safe, even before beginning, let alone completing, its review of our reactors and spent fuel pools.

"It does so in the face of its own analysis showing that there is a higher risk of core damage from earthquakes that has not yet been incorporated into regulatory requirements.

"It does so in the face of backup electricity requirements that are generally less stringent than what the Fukushima reactors were equipped with.

"And it does so after removing the post-Three Mile Island requirement to include systems to prevent the explosions of hydrogen that occurred at Fukushima from its regulations.

"I have introduced legislation, the Nuclear Power Plant Safety Act of 2011, to impose a moratorium on all pending NRC licenses and re-licenses in light of the need to fully understand the safety risks and include remedies into our own regulations. Many other countries have announced similar measures. I look forward to today's testimony."

Information on the latest status of the Fukushima reactors was gathered from communications between Congressman Markey's office and the Nuclear Regulatory Commission (NRC).

###

Group AM

**(Records Released
In Their Entirety)**

From: [WebContractor Resource](#)
To: [Hayden, Elizabeth](#)
Cc: [WebWork Resource](#)
Subject: RE: USA.gov Japan page
Date: Wednesday, March 23, 2011 9:23:38 AM

Good Morning Beth,

Please review and approve for live posting.

<http://webwork.nrc.gov:300/japan/japan-info.html>

Thank you,
Michael

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 9:04 AM
To: Hardy, Sally; WebContractor Resource; WebWork Resource
Subject: FW: USA.gov Japan page

Please add the first link below as the first link under "Other Information" on our Japan page

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: Main, Jeffrey
Sent: Wednesday, March 23, 2011 7:31 AM
To: Hayden, Elizabeth
Cc: Hoffman, Joan; Hardy, Sally; Main, Jeffrey; Harrington, Holly
Subject: USA.gov Japan page

Beth,

Just saw the following. I don't know whether this would add value to our Japan page or not. Just thought I'd pass it along.

<http://www.usa.gov/Japan2011.shtml>

I noticed they do not link to us, although the USAID page linked from the above site does mention our efforts at <http://www.usaid.gov/japanquake/index.html#help>

--Jeffrey

Am/1

From: Burnell, Scott
To: Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly
Subject: New item in WebEOC Task Tracker
Date: Wednesday, March 23, 2011 9:35:07 AM
Importance: High

**Record
#: 2241**

**EST
Actions
Officer**

*Dori
Votolato*

Desc: Coordinate with Bechtel concerning Public inquires of Bechtel efforts to support Japanese Reactors in concert with Embassy.

Thoughts? Instructions? I'd think our response would be "obtain Bechtel PR contacts to efficiently forward media requests" or something.

Am/2

From: Watson, Madonna
To: Blakeney, Catherine
Cc: Hayden, Elizabeth
Subject: Contract Secretary
Date: Wednesday, March 23, 2011 10:26:31 AM

Hi Catherine,

OPA would like to hire a Contract Secretary for about 2-months due to their staff involvement with the events in Japan.

Would you touch base with Beth Hayden to explain the process?

Her number is 415-8202.

Thanks,
Madonna

Am/3

From: Harrington, Holly
To: Couret, Ivonne; Brenner, Eliot; Hayden, Elizabeth
Cc: McIntyre, David; Burnell, Scott; Hannah, Roger
Subject: RE: FYI - Kyodo News (3/23) 9:32 AM - Radioactive iodine exceeding limit for infants found in Tokyo water
Date: Wednesday, March 23, 2011 10:26:53 AM

Yes, I'm tracking down with federal folks are working on US gov response

From: Couret, Ivonne
Sent: Wednesday, March 23, 2011 10:26 AM
To: Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth
Cc: McIntyre, David; Burnell, Scott; Hannah, Roger
Subject: FYI - Kyodo News (3/23) 9:32 AM - Radioactive iodine exceeding limit for infants found in Tokyo water

Radioactive iodine exceeding limit for infants found in Tokyo water

TOKYO, March 23, Kyodo

The Tokyo metropolitan government warned Wednesday that infants should not drink tap water in Tokyo's 23 wards and five of its suburban cities as radioactive iodine exceeding the limit for them was detected in water at a purification plant.

The amount of the substance was 210 becquerels per 1 kilogram of water at the plant in the Kanamachi district of Katsushika Ward, which serves the cities of Musashino, Mitaka, Machida, Tama and Inagi as well as central Tokyo, above the limit of 100 becquerels for infants but below 300 becquerels for older people, the metropolitan government said.

The detection came amid the country's worst nuclear crisis that has led to radiation leaks at Tokyo Electric Power Co.'s Fukushima Daiichi nuclear power plant, located about 220 kilometers northeast of Tokyo, triggered by the devastating earthquake and tsunami earlier this month.

The central government said separately it had detected radioactive iodine in 12 prefectures in a survey of tap water Tuesday covering all but four of Japan's 47 prefectures, all at levels below the regulated limit, up from eight prefectures as of Monday.

Iwate, Akita, Yamagata and Shizuoka prefectures were added to the list Tuesday. Among the four prefectures not covered by the ministry's survey, Fukushima Prefecture announced that it had detected radioactive iodine in its own survey.

Cesium, another radioactive substance, was also found in four of the 12 prefectures where radioactive iodine was detected, including Tokyo and Gunma. Cesium measuring 5.3 becquerels was detected in Tochigi and 4.8 becquerels in Ibaraki against the limit of 200 becquerels, the Ministry of Education, Culture, Sports, Science and Technology said.

Am/4

While the Tokyo government also found 190 becquerels of radioactive iodine Wednesday at the Kanamachi plant, as well as 32 becquerels on Tuesday at a plant in Hamura in western Tokyo, none was detected at a plant in Asaka, Saitama Prefecture. The science ministry found 19 becquerels in tap water in Tokyo on Tuesday as well as 15 becquerels in Tochigi and 12 becquerels in Ibaraki.

The ministry also said it had detected 1.17 million becquerels of radioactive iodine and 163,000 becquerels of cesium per kg of soil in samples collected in Iitate, Fukushima Prefecture, 40 km from the nuclear plant, in a survey it conducted Sunday.

==Kyodo

Ivonne L. Couret
Public Affairs Officer
Office of Public Affairs
Media Desk
opa.resource@nrc.gov
301-415-8200

Visit our online photo gallery. Incorporate graphics and photographs to tell your story!
<http://www.nrc.gov/reading-rm/photo-gallery/>

2010-2011 Information Digest - Where you can find NRC Facts at a Glance
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

From:QST02 HOC**To:**

Abrams, Charlotte; Abu-Eid, Bobby; Adams, John; Afshar-Tous, Mugeh; Ahn, Hosung; Alemu, Bezakulu; Algama, Don; Alter, Peter; Anderson, Brian; Anderson, James; Arndt, Steven; Arribas-Colon, Maria; Ashkeboussi, Nima; Athey, George; Baker, Stephen; Ballam, Nick; Barnhurst, Daniel; Barr, Cynthia; Barss, Dan; Bazian, Samuel; Bens, Michelle; Bergman, Thomas; Berry, Rollie; Bhachu, Ujagar; Bloom, Steven; Blount, Tom; Boger, Bruce; Bonnette, Cassandra; Borchardt, Bill; Bowers, Anthony; Bowman, Gregory; Boyce, Tom (RES); Brandon, Lou; Brandt, Philip; Brenner, Eliot; Brock, Kathryn; Brown, Cris; Brown, David; Brown, Eva; Brown, Frederick; Brown, Michael; Bukharin, Oleg; Burnell, Scott; Bush-Goddard, Stephanie; Campbell, Stephen; Camper, Larry; Carpenter, Cynthia; Carter, Mary; Case, Michael; Casto, Greg; Cecere, Bethany; Cervera, Margaret; Chazell, Russell; Chen, Yen-Ju; Cheok, Michael; Chokshi, Niles; Chowdhury, Prosanta; Circle, Jeff; Clement, Richard; Clinton, Rebecca; Coggins, Angela; Collins, Frank; Cool, Donald; Correia, Richard; Costa, Arlon; Couret, Ivonne; Crutchley, Mary Glenn; Cruz, Zahira; Cuadrado, Leira; Dacus, Eugene; DeCicco, Joseph; Decker, David; Dembek, Stephen; Devlin, Stephanie; Dimmick, Lisa; Doane, Margaret; Dorman, Dan; Dorsey, Cynthia; Dozier, Jerry; Drake, Margaret; Droggitis, Spiros; Dube, Donald; Dudes, Laura; Eads, Johnny; Emche, Danielle; English, Lance; Erlanger, Craig; Esmaili, Hossein; Figueroa, Roberto; Fiske, Jonathan; Flannery, Cindy; Floyd, Daphene; Foggie, Kirk; Foster, Jack; Fragoyannis, Nancy; Franovich, Rani; Frazier, Alan; Freshman, Steve; Fuller, Edward; Galletta, Thomas; Gambone, Kimberly; Gartman, Michael; Gibson, Kathy; Glitter, Joseph; Gilmer, James; Gordon, Dennis; Gott, William; Grant, Jeffery; Greenwood, Carol; Grimes, Kelly; Grobe, Jack; Gross, Allen; Gulla, Gerald; Hale, Jerry; Hardesty, Duane; Harrington, Holly; Harris, Tim; Hart, Ken; Hart, Michelle; Harvey, Brad; Hasselberg, Rick; Hayden, Elizabeth; Helton, Donald; Henderson, Karen; Hiland, Patrick; Holahan, Patricia; Holahan, Vincent; Holian, Brian; Howard, Arlette; Howard, Tabitha; Huffert, Anthony; Hurd, Sapna; Huyck, Doug; Imboden, Andy; Isom, James; Jackson, Karen; Jacobson, Jeffrey; Jerve, Richard; Jessie, Janelle; Johnson, Michael; Jolicoeur, John; Jones, Andrea; Jones, Cynthia; Jones, Henry; Kahler, Carolyn; Kammerer, Annie; Karas, Rebecca; Kauffman, John; Khan, Omar; Kolb, Timothy; Kotzalas, Margie; Kowalczyk, Jeffrey; Kratchman, Jessica; Kugler, Andrew; Lamb, Christopher; Lane, John; Larson, Emily; Laur, Steven; LaVie, Steve; Lewis, Robert; Li, Yong; Lichatz, Taylor; Lising, Jason; Lombard, Mark; Lubinski, John; Lui, Christiana; Lukes, Kim; Lynch, Jeffery; Ma, John; Mamish, Nader; Manahan, Michelle; Marksberry, Don; Marshall, Jane; Masao, Nagai; Maupin, Cardelia; Mayros, Lauren; Mazaika, Michael; McConnell, Keith; McCoppin, Michael; McDermott, Brian; McGinty, Tim; McGovern, Denise; McIntyre, David; McMurtry, Anthony; Merritt, Christina; Meyer, Karen; Miller, Charles; Miller, Chris; Milligan, Patricia; Miranda, Samuel; Mohseni, Aby; Moore, Scott; Morlang, Gary; Morris, Scott; Mroz (Sahm), Sara; Munson, Clifford; Murray, Charles; Nerret, Amanda; Nguyen, Caroline; Norris, Michael; Norton, Charles; Opara, Stella; Ordaz, Vonna; Owens, Janice; Padovan, Mark; Parillo, John; Patel, Jay; Patel, Pravin; Patrick, Mark; Perin, Vanice; Pope, Tia; Powell, Amy; Purdy, Gary; Quinlan, Kevin; Raddatz, Michael; Ragland, Robert; Ralph, Melissa; Ramsey, Jack; Reed, Elizabeth; Reed, Sara; Reed, Wendy; Reis, Terrence; Resner, Mark; Riley (OCA), Timothy; Riner, Kelly; Rini, Brett; Robinson, Edward; Rodriguez-Luccioni, Hector; Roggenbrodt, William; Roop, Kimberly; Rosales-Cooper, Cindy; Rosenberg, Stacey; Ross-Lee, MaryJane; Roundtree, Amy; Ruland, William; Ryan, Michelle; Salay, Michael; Salter, Susan; Salus, Amy; Sanfilippo, Nathan; Scarbrough, Thomas; Schaperow, Jason; Schmidt, Duane; Schmidt, Rebecca; Schoenebeck, Greg; Schrader, Eric; Schwartzman, Jennifer; Seber, Dogan; See, Kenneth; Shane, Raeann; Shea, James; Shepherd, Jill; Sheron, Brian; Skarda, Raymond; Skeen, David; Sloan, Scott; Smirolodo, Elizabeth; Smith, Brooke; Smith, Stacy; Smith, Theodore; Stahl, Eric; Stang, Annette; Steger (Tucci), Christine; Stieve, Alice; Stone, Rebecca; Stransky, Robert; Sturz, Fritz; Sullivan, Randy; Summers, Robert; Sun, Casper; Tappert, John; Tegeler, Bret; Temple, Jeffrey; Thaggard, Mark; Thomas, Eric; Thorp, John; Tiruneh, Nebiyu; Tobin, Jennifer; Trefethen, Jean; Tschiltz, Michael; Turtill, Richard; Uhle, Jennifer; Valencia, Sandra; Vaughn, James; Vick, Lawrence; Virgilio, Martin; Virgilio, Rosetta; Ward, Leonard; Ward, William; Wastler, Sandra; Watson, Bruce; Webber, Robert; Weber, Michael; White, Bernard; Wiggins, Jim; Williams, Donna; Williams, Joseph; Williamson, Linda; Willis, Dori; Wimbush, Andrea; Wittick, Brian; Wray, John; Wright, Lisa (Gibney); Wright, Ned; Wunder, George; Young, Francis; Zimmerman, Jacob; Zimmerman, Roy

Subject:

EAP Briefing to all Participants Working the Japan Event

Date:

Wednesday, March 23, 2011 11:04:22 AM

Importance:

High

NRC's Employee Assistance Program (EAP) will be briefing the Ops Center Staff on the issue of critical incident stress on Thursday, March 24th at the end of each shift rotation: 7:00a.m.-7:30a.m. and 3:00p.m.-3:30p.m.. We understand the high level of stress that staff has experienced during the current traumatic Japanese incident and we want to bring you the support you deserve during this heightened time of stress. We strongly encourage all employees to attend! The briefing will be held in T4B3.

*Michele Evans, Acting Deputy Director
Office of Nuclear Security and Incident Response*

Am/S

From: Stanisław Janikowski
To: Hayden, Elizabeth
Subject: Radioactive "cloud"
Date: Wednesday, March 23, 2011 11:51:06 AM

Hello,

Below I give you the address to the map I told you about:

http://www.irsln.fr/FR/popup/Pages/irsln-meteo-france_22mars.aspx

Currently we are receiving absolutely no data about any detected change in radiation situation in Poland. Despite that we do receive many phone calls asking if it is safe to outside. Tomorrow I will have to calm people in morning TV program. I'd be grateful for any data that would show the current situation over US.

Looking forward to hearing from you.

Best regards,

Stanisław Janikowski

National Atomic Energy Agency

Department of Science, Training and Public Information

36, Krucza Str., 00-522 Warsaw, Poland

Phone +48 22 695 98 69

Fax +48 22 695 98 10

e-mail: stanislaw.janikowski@paa.gov.pl

Am/6

From: Couret, Ivonne
To: Hayden, Elizabeth
Subject: MEDIA - Tara MacIsaac - Epoch Times - New York- NY Meeting
Date: Wednesday, March 23, 2011 12:23:40 PM
Importance: High

Ivonne L. Couret
Public Affairs Officer
Office of Public Affairs
Media Desk
opa.resource@nrc.gov
301-415-8200

Visit our online photo gallery. Incorporate graphics and photographs to tell your story!
<http://www.nrc.gov/reading-rm/photo-gallery/>

2010-2011 Information Digest - Where you can find NRC Facts at a Glance
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

From: Ghneim, Munira
Sent: Wednesday, March 23, 2011 11:56 AM
To: Couret, Ivonne
Subject: Tara MacIsaac - Epoch Times - New York

Organization - Epoch Times - New York
Contact - Tara MacIsaac
Phone – 212-239-2808
Email – tara.macisaac@epochtimes.com

Request – Would like to know the status of what was discussed at yesterday's meeting.
Was there any action taken?

Thank You
Munira Ghneim
Contract Secretary
Office of Information Services
301-415-1170

AM/7

From: Hayden, Elizabeth
To: Burnell, Scott
Cc: Screnci, Diane; Sheehan, Neil
Subject: Need talking points on GSI-199
Date: Wednesday, March 23, 2011 12:30:00 PM

Scott, Neil

I need you to draft some talking points on GSI-199 that summarizes briefly what has happened between the USGS data in 2008 to what we did with that information and what we are doing now and plan to do in the future (GL, analysis, inspections per what timeline?) We also need to clarify what the list of 27 plants mean etc.

A specific question from Hannah Northey, Greenwire, is when did NRC start looking at plants with regard to the 2008 data from USGS? Please call her at 202-446-0468 to clarify specifics on GSI-199.

*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*

Am/8

From: Hiland, Patrick
To: Coe, Doug
Cc: Burnell, Scott; Hayden, Elizabeth; Skeen, David; Beasley, Benjamin; Kauffman, John; Killian, Lauren; Khanna, Meena
Subject: RE: ACTION: Talking points on GI-199
Date: Wednesday, March 23, 2011 1:52:42 PM

Below is what was put together last week along with Comm Plan. I'll ask Meena to co-ordinate response to Eric Leeds and Scott Burnell.

GENERIC ISSUE 199, "IMPLICATIONS OF UPDATED PROBABILISTIC SEISMIC HAZARD ESTIMATES IN CENTRAL AND EASTERN UNITED STATES ON EXISTING PLANTS"

Objective of GI-199

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 safety risk assessment 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.

Key Messages from the GI-199 Communications Plan (slightly revised) are:

- (1) In August 2010, the Safety/Risk Assessment for GI-199 was completed. That assessment found that operating nuclear power plants are safe: Plants have adequate safety margin for seismic issues. The NRC's Safety/Risk Assessment confirmed that overall seismic risk estimates remain small and that adequate protection is maintained.
- (2) Though still small, some seismic hazard estimates have increased: Updates to seismic data and models indicate increased seismic hazard estimates for some operating nuclear power plant sites in the Central and Eastern United States.
- (3) Assessment of GI-199 will continue: Plants are safe (see key message 1), but the NRC has separate criteria for evaluating whether plant improvements may be imposed. The NRC's Safety/Risk Assessment used readily available information and found that for about one-quarter of the currently operating plants, the estimated core damage frequency change is large enough to warrant further attention. Action may include obtaining additional, updated information and developing methods to determine if plant improvements to reduce seismic risk are warranted.

Note: GI-199 Communication Plan is available in ADAMs: ML081850477.

Status of Operating Plants and Need of Additional Actions due to Japanese Event:

- Currently operating nuclear plants in the United States remain safe, with no need

Am/9

for immediate action.

- This determination is based on NRC staff reviews of updated seismic hazard information and the conclusions of the Generic Issue 199 Safety/Risk Assessment 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.
- In summary, US plants are designed for appropriate earthquake levels and are safe. As addressed above, the NRC is conducting a program called Generic Issue 199, which is reviewing the adequacy of the earthquake design of US NPPs in central and eastern North America based on the latest data and analysis techniques. The NRC will look closely at all aspects of the response of the plants in Japan to the earthquake and tsunami to determine if any actions need to be taken in US plants and if any changes are necessary to NRC regulations.

Timeline for Preparation and Issuance of GI-199 Generic Letter:

- The NRC is working on developing a Generic Letter (GL) to request information of all affected plants (96 plants that are east of the Rockies).
- The GL is planned to be issued in draft form within the next 2 months to stimulate discussions with industry in a public meeting.
- Process will be followed, i.e., Committee to Review Generic Requirements, Advisory Committee on Reactor Safeguards Meeting and then GL will be issued as a draft for formal public comments (60 days), followed by a second meeting with ACRS.
- We expect to issue the GL by the end of this calendar year, as the new consensus seismic hazard estimates become available. (This effort is being coordinated with US NRC, DOE, EPRI, and USGS).
- The information from licensees will likely require 3 to 6 months to complete. Staff's review will commence after receiving licensees' responses. Based on staff's review, a determination can be made regarding cost beneficial backfits where it can be justified.

From: Coe, Doug

Sent: Wednesday, March 23, 2011 1:45 PM

To: Beasley, Benjamin; Kauffman, John; Killian, Lauren

Cc: Burnell, Scott; Hayden, Elizabeth; Skeen, David; Hiland, Patrick

Subject: RE: ACTION: Talking points on GI-199

Ben/John/Lauren,

Can we help out OPA by extracting bullets per Eric Leed's request? Just pull directly from the Comm plan but put into a brief but logical flow of bullets.

From: Hiland, Patrick

Sent: Wednesday, March 23, 2011 1:39 PM

To: Leeds, Eric

Cc: Khanna, Meena; Burnell, Scott; Hayden, Elizabeth; Grobe, Jack; Skeen, David; Coe, Doug; Beasley, Benjamin

Subject: RE: ACTION: Talking points on GI-199

We have a communication plan; I'll retrieve and make sure up to date.

From: Leeds, Eric

Sent: Wednesday, March 23, 2011 1:38 PM

To: Hiland, Patrick; Skeen, David

Cc: Khanna, Meena; Burnell, Scott; Hayden, Elizabeth; Grobe, Jack

Subject: ACTION: Talking points on GI-199

DE –

Please provide OPA with talking points on GI-199. Scott Burnell is their POC. They need high level info – the schedule for review, upcoming public meetings, why it's ok to wait, what we'll do with the info once we get it, etc. I don't think we need hard-core technical bullets on response spectra, etc, but we do need to be able to tell the public WHY things are ok right now (not just repeat reactors are safe right now), and what we'll do going forward.

Eric J. Leeds, Director

Office of Nuclear Reactor Regulation

U.S. Nuclear Regulatory Commission

301-415-1270

From: [CSIS Energy and National Security Program](#)
To: [Hayden, Elizabeth](#)
Subject: CSIS Energy Program | Commentary | Japan's Energy Supply and Security since the March 11 Earthquake
Date: Wednesday, March 23, 2011 3:00:14 PM

To ensure receipt of our email, please add us to your address book.



Japan's Energy Supply and Security since the March 11 Earthquake

CSIS Commentary

By Jane Nakano
March 23, 2011

A 9.0-magnitude earthquake and a powerful tsunami struck Japan on March 11, 2011. In its wake, in addition to a mounting death toll and a trail of devastation, significant energy-related infrastructure was also rendered inoperable. In addition to the 11 nuclear reactors that were automatically shut down, other electricity generating facilities, refineries, and electrical grids also came to a halt—either by design or due to damage. What condition are these energy infrastructures in today? What is the situation of energy supply in Japan? How is Japan responding to the supply shortages? And, what is the impact of the earthquake/tsunami on Japan's energy security?

The outage in the immediate aftermath of the earthquake included 6,800 megawatts (MW) of nuclear power capacity and 12.4 gigawatts of thermal power capacity, representing 6.8 percent of Japan's total installed electricity generating capacity. Shutdowns also affected nearly 1.5 million barrels per day (mmb/d) of refining capacity, or nearly one-third of the nation's total refining capacity. Of the six refineries shut down (1,485 mb/d), three have since resumed operation (850 mb/d). Refineries that have been operational also increased utilization rates to make up for lost capacity elsewhere. However, it will likely take some time before full capacity is restored.

Japan has over 40 operating terminals to import liquefied natural gas (LNG). Only one small re-gasification terminal in Miyagi prefecture shut down as a result of the earthquake. The general health of LNG importing facilities would allow Japan to continue importing LNG and potentially compensate for some of the loss in nuclear power capacity.

Meanwhile, utilities with earthquake/tsunami-damaged facilities are planning on re-

Am/10

opening some of their thermal power plants that have been off-line prior to the earthquake. For example, Tokyo Electric Power Company has 10 thermal power plants (equivalent to 2,800 MW in capacity) that have been idle since before the earthquake. The Japanese government expects it to take several months before the idle plants can be brought back on-line. Some believe it could take much longer.

As power plants were shut down by the earthquake/tsunami, a concern for blackouts emerged. Initially, 5.27 million households lost power. As of March 22, some 220,000 households—mostly in the disaster-struck areas—remain without power. To help reduce the electricity demand and thus prevent blackouts, scheduled rolling blackouts were introduced beginning on March 14. The Japanese government has also been calling for electricity conservation by households and businesses. Thirteen prefectures—including Tokyo, but not in towns where the critical central government functions reside—were divided into smaller groups. The plan calls for each group to undergo a three-hour blackout on an ad hoc yet recurring basis. While the rolling blackouts are no longer scheduled for the Tohoku region, they will likely continue in Tokyo and its surrounding prefectures until at least the end of April.

Also, the Japanese government has decided to reduce industries' petroleum stockholding obligations—first by 3 days (equivalent to some 8 million barrels of oil) and subsequently by 25 days (the industry obligation prior to the earthquake was 70 days of petroleum stockholdings). Japan holds some 170 days of stocks in terms of net imports, well above the 90-day requirement called for by the International Energy Agency. At the end of December 2010, Japan's total oil stocks were 596 million barrels.

As part of disaster response efforts, the Japanese government is working to deliver fuels—including gasoline, kerosene, and light crude—to the earthquake/tsunami-struck areas and is setting up emergency service stations. As the production capacity in the industrial sector begins to climb back to the pre-earthquake/tsunami level, it may outpace the recovery in Japan's power production capacity. Also, concerns over power shortages may return as summer approaches.

Japan is the world's largest importer of liquefied natural gas and coal and the third-largest importer of oil. As Japan is heavily dependent on energy imports, the government has been promoting nuclear energy as a means to diversify its energy sources. Consequently, the current nuclear reactor crisis poses a serious challenge to the nation's energy security.

Japan currently has 54 operating nuclear reactors, meeting roughly one-third of the nation's electricity demand. Japan is the third-largest nuclear power generator in the world after the United States and France. Per the 2007 government plan, nuclear power's share of total power generation was to increase from 27 percent (in 2009) to 40 percent by 2017 and to 50 percent by 2030. Reportedly, there are 2 new plants under construction and 12 in planning stages in Japan.

In coming months, there will likely be serious scrutiny of Japan's nuclear power program and its regulatory system. Particular attention may be given to the life extension of aging power plants. In addition to Fukushima Daiichi NPP Unit 1, there are at least two other reactors that are older than 40 years (Tsuruga-1 and Mihama-1).

Further, problems in the nuclear sector will likely push up Japanese demand for oil and natural gas imports. As Japan has a limited capacity in coal-fired power generation, LNG

will likely become an interim fuel of choice. So far, industry experts point out that the LNG market is well supplied.

The nuclear crisis may also complicate Japan's efforts to address climate change challenges. Nuclear energy has been seen as an integral part of Japanese plans to achieve the emission reduction target of 25 percent by 2020. According to the industry, nuclear power reduces Japan's CO2 emissions by about 14 percent per year.

To read an online version, please click [here](#).

Jane Nakano is a fellow in the Energy and National Security Program at the Center for Strategic and International Studies in Washington, D.C.

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Please address any questions to energy@csis.org.



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From: Harrington, Holly
To: Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth; McIntyre, David; Chandrathil, Prema; Dricks, Victor; Hannah, Roger; Ledford, Joey; Mittyng, Viktoria; Screnci, Diane; Sheehan, Neil; Uselding, Lara
Subject: Updated talking points
Date: Wednesday, March 23, 2011 3:13:37 PM
Attachments: QUAKE TP 3 23.docx

These incorporate some language we've used in the blog and various Q&As recently done, updates some information and puts the topics in an order more reflective of the questions we're getting now.

We'll also post to WebEOC.

Holly

Am /11

OPA

TALKING POINTS

JAPAN NUCLEAR SITUATION

As of 3/23/2011 2:30 PM

Updates in Red

CONTENTS

1. The Safety of U.S. Nuclear Power Plants
2. Monitoring Radiation in the United States
3. The Situation in Japan

PART 1: THE SAFETY OF U.S. NUCLEAR POWER PLANTS

- The NRC is always looking to learn information that can be applied to U.S. reactors and we will analyze the information that comes from this incident. President Obama has asked the agency to conduct a comprehensive review of the safety of U.S. nuclear plants; the agency will do so.
- The NRC issued an Information Notice on March 18 to all of its operating nuclear power plants describing the effects of the March 11 earthquake and tsunami on Japanese nuclear power plants. The purpose of the Information Notice is to inform the plants of the most recent information available to the NRC. The NRC expects U.S. nuclear power plants will review the entire notice to determine how it applies to their facilities and consider actions, as appropriate.
- U.S. nuclear power plants are built to withstand environmental hazards, including earthquakes. 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. The NRC then adds a margin for error to account for the limitations on historical data. In other words, U.S. nuclear power plants are designed to be safe based on historical data to predict the area's maximum credible earthquake.
- In response to MSNBC.com report ranking US NPPs according to vulnerability to earthquakes: The NRC does not rank nuclear power plants according to their vulnerability to earthquakes. This "ranking" was developed by an MSNBC reporter using partial information and an even more partial understanding of how we evaluate plants for seismic risk. Each plant is evaluated individually according to the geology

of its site, not by a "one-size-fits-all" model - therefore such rankings or comparisons are highly misleading.

- In the 1980s and 1990s, the NRC required several changes to the BWR Mark I containments at U.S. plants to ensure they could continue to deal with severe events. The first issue involved the design's large circular tube, or "torus," which holds enough water to safely condense the large volumes of steam that could be released during a severe event. The NRC became aware in the mid-late 1970s that designers might have underestimated the forces the torus would have to withstand during an event. The NRC laid out an appropriate generic approach to resolving the issue in August 1982, and individual reactors carried out their plant-specific torus reinforcement efforts.
- The second issue involved the potential for containment failure following an extended loss of decay heat removal capability. Under the Mark I Containment Performance Improvement program that ran from the late 1980s into the early 1990s, all Mark I BWRs operating at that time installed hardened vent systems to provide an additional decay heat removal capability to protect against containment overpressure failure. The containment vent system could also be used to control hydrogen concentrations in containment. Two units, Browns Ferry 1 and 3, were in extended shutdown at that time, and hardened vents were installed before those reactors restarted. In addition most plants provided an alternate water injection capability that is independent of normal and emergency power supplies and enhanced the reliability of the automatic depressurization system to reduce the likelihood of a challenge to containment. Furthermore, in 2003, the Commission issued the "Hydrogen Rule" (10CFR50.44) that required all BWR Mark I plants to operate in an inert atmosphere to preclude the possibility of a hydrogen explosions in containment.
- The NRC recommendation related to a 50-mile evacuation zone for Americans near the affected nuclear power plants in Japan is consistent with the same kind of approach that

would be used in the United States should a comparable, although extremely unlikely, event take place here.

- In November 1976, a federal task force was formed to look at salient emergency planning issues for U.S. nuclear power plants. Out of that comprehensive evaluation came a recommendation that a 10-mile-radius EPZ would assure that “prompt and effective actions can be taken to protect the public in the event of an accident” at a plant. This was based on research showing the most significant impacts of an accident would be expected in the immediate vicinity of a plant and therefore any initial protective actions, such as evacuations or sheltering in place, should be focused there. That does not mean the protective actions could not expand beyond the 10-mile radius. Rather, emergency planners have always known such actions could be necessary if the situation warranted it. (See NUREG 0654/FEMA-REP-1.)
- Following the events of Sept. 11, 2001, NRC required all nuclear plant licensees to take additional steps to protect public health and safety in the event of a large fire or explosion. In accordance with NRC regulations, all nuclear power plants are required to maintain or restore cooling for the reactor core, containment building, and spent fuel pool under the circumstances associated with a large fire or explosion. These requirements include using existing or readily available equipment and personnel, having strategies for firefighting, operations to minimize fuel damage, and actions to minimize radiological release to the environment. In general, mitigative strategies are plans, procedures, and pre-staged equipment whose intent is to minimize the effects of adverse events. If needed, these mitigative strategies could also be used during natural phenomena such as earthquakes, tornadoes, floods, and tsunamis.

PART 2: MONITORING RADIATION IN THE UNITED STATES

- The NRC is working closely with our federal partners to monitor radiation releases from the Japanese nuclear power plants. Given the results of the monitoring and distance between Japan and Hawaii, Alaska, U.S. Pacific Territories and the U.S. West Coast, the NRC expects the U.S. to avoid any harmful levels of radioactivity. Reports of radiation being detected in the United States are all far below levels that would present a health risk. Additional questions regarding monitoring of the radioactive release should be referred to DOE at 202 586 4940.
- The Department of Energy has been designated the lead agency for communicating information to the states regarding monitoring of radiation heading toward or over the United States. The DOE's Lawrence Livermore National Laboratory (National Atmospheric Release Assessment Center) is monitoring weather patterns over the Pacific Ocean. The Environmental Protection Agency maintains air monitoring stations throughout the country and has reinforced its monitoring effort. DOE will provide aerial monitoring. Questions about this effort should be directed to DOE at 202 586 4940.
- The Environmental Protection Agency has increased its radiation monitoring in the western U.S. Data from the EPA's RadNet is available on the EPA's website.
- [Only if specifically asked] The NRC is aware that Diablo Canyon nuclear power plant in California, among others, have detected a very low level of radiation. The site believes that the source of the radiation is likely the Fukushima Daiichi nuclear power plant in Japan. The amounts detected are barely detectable on the instruments and pose no danger to public health and safety. The NRC continues to believe, based on all available information, that no harmful levels of radiation will reach U.S. territory. This information has been shared with the U.S. Department of Energy and the U.S. Environmental Protection Agency. Additional questions regarding monitoring of the radioactive release should be referred to DOE at 202 586 4940.

- In accordance with established protocols, U.S. Customs and Border Protection (CBP) employs several types of radiation detection equipment in its operations at both air and sea ports, and uses this equipment, along with specific operational protocols, to resolve any security or safety risks that are identified with inbound travelers and cargo. Out of an abundance of caution, CBP has issued field guidance reiterating its operational protocols and directing field personnel to specifically monitor maritime and air traffic from Japan. CBP will continue to evaluate the potential risks posed by radiation contamination on inbound travelers and cargo and will adjust its detection and response protocols, in coordination with its interagency partners, as developments warrant.

PART 3: THE SITUATION IN JAPAN

- As of Sunday, March 20, 2011, the NRC continues to monitor the nuclear crisis in Japan stemming from the March 11 earthquake and tsunami. NRC's top priorities are the continued assessment of radiological conditions, dose predictions, and protective action recommendations. This effort focuses primarily on conditions in Japan around the vicinity of the Fukushima Daiichi nuclear power plant. The NRC is also working with DOE to model the flow of radiation across the Pacific Ocean toward the United States.
- A team of 40 NRC experts continues to assist Japanese efforts in Tokyo as part of a USAID-sponsored assistance effort. [If asked: One team member fell ill and returned to the US. Numbers in the team and names change; please check if asked.]
- The Commission was briefed by the NRC staff on the situation in Japan at a public meeting on Monday, March 21, 2011. A transcript for the public commission meeting held yesterday has been posted. The meeting included an overview of NRC actions related to the Japanese emergency and the possible short- and long-term activities for the NRC. The transcript can be found here: <http://www.nrc.gov/reading-rm/doc-collections/commission/recent/2011/>. And the slides from the meeting are located at: <http://www.nrc.gov/reading-rm/doc-collections/commission/slides/2011/20110321/staff-slides-03212011-meeting-rev1.pdf>.
- Chairman Jaczko gave opening remarks at the meeting. He said, in part, "We have a responsibility to the American people to undertake a systematic and methodical review of the safety of our own domestic nuclear facilities, in light of the natural disaster and the resulting nuclear emergency in Japan. Beginning to examine all available information is an essential part of our effort to analyze the event and understand its impact on Japan and implications for the United States. Our focus is always on keeping plants and radioactive materials in this country safe and secure."

A copy of his full opening remarks can be found here: <http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-054.pdf>

- Based on calculations performed by NRC experts, we continue to believe that it is appropriate for U.S. residents within 50 miles of the Fukushima reactors to evacuate. Our recommendation is based on NRC guidelines for public safety that would be used in the United States under similar circumstances.
- The 10-mile EPZ reflects the area where projected doses from design basis accidents at nuclear power plants would not exceed the EPA's protective action guidelines, and we are confident that it would be adequate even for severe accidents. However, the 10-mile zone was always considered a base for emergency response that could be expanded if the situation warranted. The situation in Japan, with four reactors experiencing exceptional difficulties simultaneously, creates the need to expand the EPZ beyond the normal 10-mile radius, based on our limited data and conservative assumptions.
- The NRC is closely monitoring information about the spent fuel pools as well as radiation levels at the Japanese nuclear power plants. Given the totality of the situation, the NRC's recommendation for U.S. residents within 50 miles of the Fukushima reactors to evacuate remains unchanged. That recommendation was based on actual radiation levels in the nuclear complex.
- The Japanese government has formally asked for U.S. assistance in responding to nuclear power plant cooling issues triggered by an earthquake and tsunami on March 11.
- The NRC is coordinating its actions with other federal agencies as part of the U.S. government response. The NRC's headquarters Operations Center was activated at the beginning of the event and has been monitoring the situation on a 24-hour basis ever since.

From: [EDO Update](#)
To: [Taylor, Renee](#)
Subject: EDO Update
Date: Wednesday, March 23, 2011 4:22:48 PM

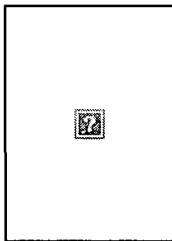
EDO Banner



EDO Update



Wednesday, March 23, 2011



The NRC (as well as many other parts of the U.S. government) is continuing to provide assistance to Japan. Nearly every NRC employee has been affected, in one way or another, by our response to the Japan tragedy. We are beginning to send replacement staff to Japan for our team of NRC experts and 24/7 staffing of the operations center continues. I thank you for your adaptability, flexibility and willingness to contribute your efforts to our important work. Despite the fact that so much public attention is being directed to our Japan efforts, we continue to meet our primary responsibility of ensuring U.S. public health and safety.

Fukushima Event and Normal NRC Operations

Although the situation is still dynamic, events at the Fukushima reactor site appear to be on the road to stabilizing. A wide range of complex technical challenges are being addressed in Japan including the restoration of "normal" electric power to the reactor plant equipment. I would like to reiterate my thanks and those of the Chairman and Commission both to those of you who are responding to the events in Japan and to those of you who continue to carry out our mission of ensuring the safe and secure civilian uses of nuclear materials in the U.S. I am impressed by the commitment and flexibility you have shown in challenging circumstances. Nearly everyone in the agency has had to step up with extra effort as many managers and staff have taken on additional duties. I would ask you all to continue demonstrating the same dedication for a bit longer, and to continue upholding the NRC Values and the principles of an Open, Collaborative Work Environment.

The Office of Human Resources has distributed information to supervisors and timekeepers to summarize the options and guidelines for determining work schedules and premium pay for employees serving in and supporting the Operations Center, or working in Japan. I ask supervisors to exercise flexibility and understanding as they

Am/12

accommodate responders' often unpredictable work schedule and premium pay needs.

For those who did not have a chance to watch last Friday's All Employees meeting, the video is available here:

<http://r2.nrc.gov/videoarchive/ViewVideo.cfm?vlink=275>

The video, as well as the PowerPoint files and transcript, of Monday's Commission meeting are available on this NRC public website page dedicated to the Fukushima events. I encourage the staff to periodically check this link for other updated information on the event.

<http://www.nrc.gov/japan/japan-info.html>

Continuing Resolution

Congress has passed, and the President signed, another Continuing Resolution, extending federal government funding through April 8th. We continue to be prepared for a variety of scenarios.

Ann Thomas Retirement

Ann Thomas, a long-time NRC employee known to many of you as the editor of the *NRC Reporter* (and before that, the *NR&C* newsletter) and a pillar of the Employees Welfare and Recreation Association, will be retiring at the end of this month. Please join me in extending to Ann our best wishes for an enjoyable retirement in her new home.



Bill Borchardt, EDO

From: Hayden, Elizabeth
To: Harrington, Holly
Subject: RE: FYI: availability for OPA support
Date: Wednesday, March 23, 2011 4:45:00 PM

It doesn't get better than this. She is so helpful and has a very level head.

Beth

From: Harrington, Holly
Sent: Wednesday, March 23, 2011 12:58 PM
To: McIntyre, David; Clark, Theresa
Cc: Ader, Charles; Lombard, Mark; Hayden, Elizabeth; Akstulewicz, Brenda
Subject: RE: FYI: availability for OPA support

Theresa – as for your TAC question – please talk to your HR rep. I believe there is a TAC associated with response to the Japanese event, which you are supporting.

From: McIntyre, David
Sent: Wednesday, March 23, 2011 12:48 PM
To: Clark, Theresa
Cc: Ader, Charles; Lombard, Mark; Hayden, Elizabeth; Akstulewicz, Brenda; Harrington, Holly
Subject: RE: FYI: availability for OPA support

Thanks, Theresa. We usually have our conference call with the regional PAOs on Thursdays at 10:15, and backbriefs on Monday at 11 in Eliot's office. I'm sure you're welcome to join us in those at any time.

From: Clark, Theresa
Sent: Wednesday, March 23, 2011 12:04 PM
To: McIntyre, David
Cc: Ader, Charles; Lombard, Mark; Hayden, Elizabeth
Subject: FYI: availability for OPA support

Dave, thanks for discussing the envisioned OPA support with me. As we discussed, I'm available part-time and you can just call me when things arise. In addition, I can fill in for you all day on April 1 (your vacation) as well as being on call that weekend if needed.

Please keep me involved as things come up. I would like to sit in on some of your meetings/telecons if possible to see how those go... it's been a while. Also—please let me know which TAC I should use.

I have blocked chunks of available time on my calendar as follows. Though you probably won't need them all, I am most likely to be available during these times—again, you can call when needed and we'll try to work something out.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
			3/24 – AM (ex. 10-10:30)	
3/28 – 10:30-	3/29 – AM	3/30 – all day	3/31 – AM	4/1 – all day

A m/13

12:30				
4/4 – 10:30-12:30	4/5 – 10-1:30	4/6 – all day (ex. 11:30-1)	4/7 – AM	4/8 – all day
4/11 – 11-1:30	4/12 – AM	4/13 – all day	4/14 – AM	4/15 – all day
4/18 – 10:30-12:30	4/19 – AM	4/20 – AM	4/21 – AM	4/22 – all day

If you need to reach me outside of work hours (8-5:45ish), call my cell at 301-693-9929. I'll look into a loaner BlackBerry, maybe, too.

Thanks!

--

Theresa Valentine Clark
 Technical Assistant
 Division of Safety Systems and Risk Assessment
 U.S. NRC Office of New Reactors
 T-10F10 | 301-415-4048
Theresa.Clark@nrc.gov

From: Hayden, Elizabeth
To: Brenner, Eliot
Subject: RE: for tomorrow
Date: Wednesday, March 23, 2011 5:48:00 PM

The latest news reports I've seen paint a more optimistic picture.

Beth

From: Brenner, Eliot
Sent: Wednesday, March 23, 2011 5:45 PM
To: Hayden, Elizabeth
Subject: RE: for tomorrow

He didn't share anything further.

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 5:44 PM
To: Brenner, Eliot
Subject: RE: for tomorrow

Care to illuminate the basis for the Chairman's statement?

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: Brenner, Eliot
Sent: Wednesday, March 23, 2011 5:20 PM
To: Harrington, Holly; Hayden, Elizabeth
Subject: RE: for tomorrow

I don't feel the need to come in. I can handle it over the weekend. If I get swamped, I'll call for a little help. Just fyi, the chairman said this situation could get worse before it gets better.

From: Harrington, Holly
Sent: Wednesday, March 23, 2011 5:01 PM
To: Hayden, Elizabeth; Brenner, Eliot
Subject: RE: for tomorrow

I would move to the OP Center at 5 to keep a presence there, pick up voice mail, etc.

I will make you a copy of the calendar that I did for myself (I found the online calendar confusing

Am/14

for my purposes.)

I have not made arrangement for someone to pull this "swing" shift for Friday. I cannot personally do it. I was assuming Scott could not due to train schedules. I did not ask Dave . . .

We still need to talk about weekend coverage. The Op Center will still be going, but I think OCA is not staffing and we're with them. Eliot – you have duty. I was thinking we could split the duty so one person isn't stuck with all the work. Probably whomever is on duty should check the voice mail once or twice and monitor BB . . .

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 4:43 PM
To: Harrington, Holly; Brenner, Eliot
Subject: RE: for tomorrow

Are you staying here or in the Ops Center? Are we going to have someone late for Friday? Do you have a copy of the calendar showing office/PA coverage?

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: Harrington, Holly
Sent: Wednesday, March 23, 2011 1:30 PM
To: Brenner, Eliot; Hayden, Elizabeth
Subject: for tomorrow

I'm thinking about working a later shift tomorrow, like 10-7 to give us a little later night coverage. Roger said he took some calls after close of business yesterday, and we'll lose him after tonight.

From: [Hannah Northey](#)
To: [Burnell, Scott](#)
Cc: [Hayden, Elizabeth](#)
Subject: RE: Seismic Study
Date: Wednesday, March 23, 2011 5:55:02 PM

No need to apologize, I understand.

I need to file my story at 11am tomorrow and could use your help tonight if you can talk at all.

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, March 23, 2011 4:20 PM
To: Hannah Northey
Cc: Hayden, Elizabeth
Subject: RE: Seismic Study

Hi Hannah;

It's been just that busy, my apologies. What deadline are you working on right now?

Scott

From: Hannah Northey [mailto:hnorthey@eenews.net]
Sent: Wednesday, March 23, 2011 4:12 PM
To: Hayden, Elizabeth
Cc: Burnell, Scott
Subject: RE: Seismic Study

Hi Beth,

I have not yet heard from Scott – should I give him a call? I cc'd him on this email but I'm not sure the address is correct.

Thanks much, Hannah

From: Hayden, Elizabeth [mailto:Elizabeth.Hayden@nrc.gov]
Sent: Wednesday, March 23, 2011 12:33 PM
To: Hannah Northey
Subject: Seismic Study

Hannah,

Please take a look at this Fact Sheet for background information [Fact Sheet on Seismic Issues for Nuclear Plants](#) .

I've asked Scott Burnell to call you to give you a more detailed explanation of the seismic study, and our reviews.

*Beth Hayden
Office of Public Affairs
U.S. Nuclear Regulatory Commission*

Am/15

--- Protecting People and the Environment
301-415-8200
elizabeth.hayden@nrc.gov

From: Couret, Ivonne
To: Burnell, Scott; McIntyre, David; Brenner, Eliot; Dricks, Victor; Uselding, Lara; Mitlyng, Viktoria; Chandrathil, Prema; Screnci, Diane; Sheehan, Neil; Hannah, Roger; Ledford, Joey
Cc: Janbergs, Holly; Hayden, Elizabeth; Harrington, Holly
Subject: In Case you need the SRM -COMGBJ-11-0002 - NRC Actions Following the Events in Japan
Date: Wednesday, March 23, 2011 6:16:09 PM

03/23/2011 COMGBJ-11-0002 NRC Actions Following the Events in Japan

If reporters reach out to you - Page link to the document:
<http://www.nrc.gov/reading-rm/doc-collections/commission/recent/2011/>

Ivonne L. Couret
Public Affairs Officer
Office of Public Affairs
Media Desk
opa.resource@nrc.gov
301-415-8200

Visit our online photo gallery. Incorporate graphics and photographs to tell your story!
<http://www.nrc.gov/reading-rm/photo-gallery/>

2010-2011 Information Digest - Where you can find NRC Facts at a Glance
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

Am/16

From: Hayden, Elizabeth
To: Weber, Michael
Subject: RE: RESPONSE - coordination
Date: Wednesday, March 23, 2011 6:30:00 PM

Thanks. Their last chart looks a lot like one of ours on the website.

Beth

From: Weber, Michael
Sent: Wednesday, March 23, 2011 6:02 PM
To: Leeds, Eric
Cc: Zimmerman, Roy; ET01 Hoc; PMT01 Hoc; OST02 HOC; LIA06 Hoc; LIA08 Hoc; Hannah, Roger; Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly; Borchardt, Bill; Virgilio, Martin
Subject: RESPONSE - coordination

Thanks, Eric.

By the way, in our earlier discussion, I mentioned that DOE has made public the AMS radiological measurement data from the overflights in Japan. The web link is at <http://energy.gov/news/10194.htm> . That press release links you to the slides that are attached.

From: Leeds, Eric
Sent: Wednesday, March 23, 2011 5:59 PM
To: Evans, Michele; Weber, Michael; Taylor, Renee
Cc: Virgilio, Martin
Subject: RE: coordination

I closed the loop with Tony! I indicated we would get back to him tomorrow with his contact here at NRC.

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

From: Evans, Michele
Sent: Wednesday, March 23, 2011 4:41 PM
To: Weber, Michael; Taylor, Renee
Cc: Leeds, Eric; Virgilio, Martin
Subject: FW: coordination

Mike,
I believe this was being worked by the ET today. Can you close the loop with Tony?
Please confirm.

Thanks

Michele

Am / 17

From: Leeds, Eric
Sent: Wednesday, March 23, 2011 4:36 PM
To: Evans, Michele
Subject: FW: coordination

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

From: Virgilio, Martin
Sent: Wednesday, March 23, 2011 3:21 PM
To: Leeds, Eric
Subject: Fw: coordination

Eric

Please have someone close the loop with Tony

Marty

From: PIETRANGELO, Tony <arp@nei.org>
To: Virgilio, Martin
Cc: Borchardt, Bill
Sent: Wed Mar 23 07:01:23 2011
Subject: RE: coordination

Marty,

We will make this happen. Need the contact person in OSTP and NRC so that we can communicate to the plants.

Tony

From: Virgilio, Martin [mailto:Martin.Virgilio@nrc.gov]
Sent: Wednesday, March 23, 2011 5:33 AM
To: PIETRANGELO, Tony
Cc: Borchardt, Bill
Subject: coordination

Tony

Indications of trace but detectable amounts of I-131 are being reported at some nuclear plants in the U.S. (Ginna and Nine Mile). I expect we will be receiving more of these reports.

We have an interagency understanding that this type of information will be collected and assessed by OSTP (John Holdren).

Our preference would be to have NRC licenses who believe they have detected the effects of the releases in Japan report this information directly to OSTP and copy us. Would NEI be willing to take the lead on making this happen?

Marty



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Sent through mail.messaging.microsoft.com

March 23, 2011

MEMORANDUM TO: Chairman Jaczko

FROM: Annette Vietti-Cook, Secretary **/RA/**

SUBJECT: COMGBJ-11-0002 – NRC ACTIONS FOLLOWING THE EVENTS
IN JAPAN

This memorandum is to inform you that all Commissioners have concurred in your proposal regarding NRC actions following the events in Japan. The attached tasking memorandum provides staff direction on this issue.

This completes action on COMGBJ-11-0002.

Attachment:
As stated

cc: Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
EDO
OGC
OPA
OCA

Am /18

March 23, 2011

MEMORANDUM TO: R. W. Borchardt
Executive Director for Operations

FROM: Chairman Jaczko /RA/

SUBJECT: TASKING MEMORANDUM – COMGBJ-11-0002 – NRC
ACTIONS FOLLOWING THE EVENTS IN JAPAN

The staff should establish a senior level agency task force to conduct a methodical and systematic review of our processes and regulations to determine whether the agency should make additional improvements to our regulatory system and make recommendations to the Commission for its policy direction. The review should address the following near term and then longer term objectives.

Near Term Review

- This task force should evaluate currently available technical and operational information from the events that have occurred at the Fukushima Daiichi nuclear complex in Japan to identify potential or preliminary near term/immediate operational or regulatory issues affecting domestic operating reactors of all designs, including their spent fuel pools, in areas such as protection against earthquake, tsunami, flooding, hurricanes; station blackout and a degraded ability to restore power; severe accident mitigation; emergency preparedness; and combustible gas control.
- The task force should develop recommendations, as appropriate, for potential changes to inspection procedures and licensing review guidance, and recommend whether generic communications, orders, or other regulatory requirements are needed.
- The task force efforts should be informed by some stakeholder input but should be independent of industry efforts.
- The report would be released to the public per normal Commission processes (including its transmission to the Commission as a Notation Vote Paper).

To ensure the Commission is both kept informed of these efforts and called upon to resolve any policy recommendations that surface, the task force should, at a minimum, be prepared to brief the Commission on a 30 day quick look report; on the status of the ongoing near term review at approximately the 60 day point; and then on the 90 day culmination of the near term efforts. Additional specific subject matter briefings and additional voting items that request Commission policy direction may also be added during the Commission's agenda planning meetings.

(EDO)

(SECY Suspense: 30, 60, & 90 days)

Longer Term Review

- The task force's longer term review should begin as soon as NRC has sufficient technical information from the events in Japan with the goal of no later than the completion of the 90 day near term report, and the task force should provide updates on the beginning of the longer term review at the 30 and 60 day status updates.
- This effort would include specific information on the sequence of events and the status of equipment during the duration of the event.
- The task force should evaluate all technical and policy issues related to the event to identify potential research, generic issues, changes to the reactor oversight process, rulemakings, and adjustments to the regulatory framework that should be conducted by NRC.
- The task force should evaluate potential interagency issues such as emergency preparedness.
- Applicability of the lessons learned to non-operating reactor and non-reactor facilities should also be explored.
- During the review, the task force should receive input from and interact with all key stakeholders.
- The task force should provide a report with recommendations, as appropriate, to the Commission within six months from the start of the evaluation for Commission policy direction.
- The report would be released to the public per normal Commission processes (including its transmission to the Commission as a Notation Vote Paper).
- Before beginning work on the longer term review, staff should provide the Commission with estimated resource impacts on other regulatory activities.
- The ACRS should review the report as issued in its final form and provide a letter report to the Commission.

(EDO)

(SECY Suspense: 9 months, if needed)

cc: Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
CFO
OCA
OPA
Office Directors, Regions, ACRS, ASLBP (via E-Mail)
PDR

From: [Hayden, Elizabeth](#)
To: [Brenner, Eliot](#)
Subject: FW: Heads up: Japan evacuations
Date: Wednesday, March 23, 2011 7:04:00 PM
Attachments: [Japan evacuation.doc](#)

FYI—Don't know if you want to bring this up at morning meeting to give folks warm and fuzzies from many other countries following our lead on evacuations.

Beth

From: Leeds, Eric
Sent: Wednesday, March 23, 2011 2:24 PM
To: Brenner, Eliot; Hayden, Elizabeth
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Johnson, Michael; Holahan, Gary; Wiggins, Jim; Evans, Michele; Miller, Charles; Sheron, Brian; Uhle, Jennifer; Doane, Margaret; Mamish, Nader; Grobe, Jack; Boger, Bruce; Ruland, William; Dean, Bill; McCree, Victor; Pederson, Cynthia; Howell, Art; Batkin, Joshua
Subject: Heads up: Japan evacuations

FYI - I asked our contact at the NEA for info on other countries evacuating around Fukushima. Some other members of the international community followed the US recommendation. Some did other things. See below and attached.

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

From: Diane.JACKSON@oecd.org [mailto:Diane.JACKSON@oecd.org]
Sent: Wednesday, March 23, 2011 1:22 PM
To: Leeds, Eric
Subject: Your question about Japan evacuations

Eric –

I did some web searching. Canada, South Korea, UK and Australia stated an evacuation distance of 80 km/ 50 miles.

Many countries, such as France, urged their citizens in the north-east Japan and Tokyo to evacuate. In most reports, most countries do not state the reason is nuclear and they do not give a defined distance.

Attached are excerpts from reports with web sources.

Hope that helps,
Diane

Am 1/19

CANADIAN NUCLEAR SAFETY COMMISSION (CNSC): March 17, 2011 19:08 EDT:
"Given the evolving situation, Canadians located within 80 km of the Fukushima Nuclear Power Plant should consider, as a further precautionary measure, evacuating this area. The directions of the Japanese government and local emergency response personnel should also be followed by all Canadians in Japan."

CANADA FOREIGN AFFAIRS AND INTERNATIONAL TRADE: 23 March, 2011

"Following damage to the Fukushima nuclear power station in Okumacho, Canadians are strongly advised to follow the advice issued by the Japanese authorities. An evacuation order is in effect for the zone within 20 km of the Fukushima Nuclear Power Plant. Japanese authorities recommend that people between 20 km and 30 km from the plant remain indoors with windows and doors closed and refrain from using ventilation systems. Given the evolving situation, Canadians located within 80 km of the plant are advised that they should, as a further precautionary measure, evacuate this area. The directions of the Japanese government and local emergency response personnel should also be followed by all Canadians in Japan. "

Kyodo News: March 18, Kyodo

<http://english.kyodonews.jp/news/2011/03/79157.html>

"S. Korea to mobilize military planes to evacuate nationals from Japan"

On Thursday, South Korea upgraded a safety advisory telling its citizens in Japan to stay at least 80 kilometers away from the crippled nuclear reactors in Fukushima Prefecture, more than doubling the previous evacuation distance of 30 km amid rising fears of exposure to radiation.

Australian Business Traveller: 18 March 2011

<http://www.ausbt.com.au/australian-government-to-japan-travellers-leave-now-tokyo-unsafe>

ARPANSA [the Australian Radiation Protection and Nuclear Safety Agency] recommended that Australians within 80 kilometres of the Fukushima Nuclear Power Plant move out of the area as a precautionary measure.

Travel Weekly: Mar 17, 2011 07:43

"Nuclear fears in Japan prompt FCO warning"

<http://www.travelweekly.co.uk/Articles/2011/03/17/36516/nuclear-fears-in-japan-prompt-fco-warning.html>

The Government is chartering aircraft to evacuate Britons from Japan to Hong Kong as concerns heighten over fallout from the stricken Fukushima nuclear plant.

The Foreign and Commonwealth Office updated its travel advice today, saying: "Due to the evolving situation at the Fukushima nuclear facility and potential disruptions to the supply of goods, transport, communications, power and other infrastructure, British nationals currently in Tokyo and to the north of Tokyo should consider leaving the area.

"The UK government is chartering flights from Tokyo to Hong Kong to supplement commercially available options for those wishing to leave Japan."

Britons were urged to remain outside an 80km radius of the nuclear plant "as an additional precautionary measure," saying the call was in line with the US government's advice to its citizens in Japan.

"If you are currently between 30km and 80km from the facility, we advise you to leave the area or take shelter indoors if you are unable to travel," the FCO said. Britons seeking to leave Japan were advised to use commercial flights as their first option or register interest in the charter option to Hong Kong.

BBC report: 18 march 2011

<http://www.bbc.co.uk/news/world-asia-pacific-12775329>

"Foreign evacuations"

- US - providing flights for people who wish to leave, advising 50-mile exclusion zone around Fukushima
- France - urging people to leave northern Japan and Tokyo, sending government planes to fly French out
- UK - advising nationals to leave north-east and Tokyo, chartering flights out
- China - bringing thousands to Niigata for evacuation
- Australia - people with non-essential roles to leave Japan

China says it has evacuated more than 6,000 of its nationals from quake-hit areas, mostly to Niigata on Japan's west coast, and is laying on six to eight additional flights to bring them home.

South Korea has said it will mobilise military ships and aircraft to evacuate its citizens if the situation worsens. At the moment it has told its nationals to stay 50 miles away from the plant.

Most other countries have also advised their nationals to evacuate from the north-eastern region of Japan or to leave the country altogether if they can.

Financial Times report Published: March 17 2011 17:14

"Foreign governments step up evacuations"

<http://www.ft.com/cms/s/0/592cdc28-50b1-11e0-9227-00144feab49a.html#axzz1HRMbjqdg>

In the clearest sign yet that foreign governments are losing confidence in the Japanese government's ability to contain radioactivity from the crippled reactors, embassies including Australia, China, South Korea and Thailand upgraded their warnings to nationals in Japan.

The US and UK governments on Thursday said they were arranging charter flights for their nationals to leave Japan. The UK and Australia also expanded the evacuation zone to 80km in line with advice from the US to its nationals.

World News Company report: March 17 2011

<http://www.worldnewsco.com/4528/residents-radius-80-km-fukushima-nuclear-power-plant/>

The government of United States called on their citizens within a radius of 80 kilometers from the Fukushima nuclear power plant to leave the area. U.S. warning shows the evacuation radius which is wider than the evacuation order issued by Japanese government.

The Japanese government had previously urged people living within a radius of 20 kilometers from the Fukushima nuclear power plant to flee to other places.

The Japanese government also urged people residing within a radius of 32 kilometers from the Fukushima nuclear power plant to not leave the house if they can not leave the area.

While the British Foreign Office said, English people should now consider to go from Tokyo and the northeast region of Japan.

"Concerning the situation in the Fukushima nuclear facilities, the last suggestion of The UK Government Chief Scientific Adviser (GCSA) is for those who are outside the exclusion zone established by the Japanese authorities, no real problems to worry about the **health** of human society. This advice is kept under review constantly," the statement of British Foreign Office.

"However, due to the situation that developed at the Fukushima nuclear facilities and potential disruptions to supply of goods, transportation, communications, electricity and other infrastructure, British citizens who currently resides in Tokyo and the north of Tokyo to consider leaving the area," thus, the official statement of British Foreign Office as reported by the Daily Telegraph on Thursday (March 17, 2011).

The Swiss government also urged its citizens to leave Tokyo and northeastern Japan. Previously, the Australian government had also urged its citizens residing in Tokyo, near Fukushima nuclear power plant and other areas affected by earthquake and tsunami to go to

evacuate. The call of evacuation of residents also issued by the governments of South Korea and France.

International Business Time: March 17, 2011 9:45 PM AEST

<http://au.ibtimes.com/articles/123822/20110318/uk-japan.htm>

As foreigners in Japan become increasingly desperate to flee the country, the British government has chartered planes to fly Britons in the country from Tokyo to Hong Kong.

"The UK government is chartering flights from Tokyo to Hong Kong to supplement commercially available options for those wishing to leave Japan," said a spokesman for the Foreign Office.

"Due to the evolving situation at the Fukushima nuclear facility and potential disruptions to the supply of goods, transport, communications, power and other infrastructure, British nationals in Tokyo and to the north of Tokyo should consider leaving the area," a UK government spokesman stated.

Britain follows other nations, including France, Turkey and China, which have already advised its nations to leave Japan

From: Google Alerts
To: Hayden, Elizabeth
Subject: Google Alert - Nuclear Regulatory Commission
Date: Wednesday, March 23, 2011 9:13:39 PM

News

6 new results for **Nuclear Regulatory Commission**

Chu touts small module reactors as the answer to **nuclear** hazards

Forbes (blog)

In February, the **Nuclear Regulatory Commission** reversed longstanding opposition to small reactors and issued a request for information to gauge the interest of potential manufacturers. The **NRC** considers reactors small if they produce less than 700 ...

[Forbes \(blog\)](#)

[See all stories on this topic »](#)

NRC to review safety at US nuclear plants

USA Today

By Michael Winter, USA TODAY The **Nuclear Regulatory Commission** said in a news release that it will set up a task force to conduct short- and long-term analysis of "the lessons that can be learned from the situation in Japan. ...

[USA Today](#)

[See all stories on this topic »](#)

NY **Nuclear** Plant Will Get Top Priority in Federal Review

International Business Times

In a letter to **NRC** Chairman Jaczko last week, New York Attorney General Eric Schneiderman said that while New York State had raised concerns about seismic risk and other issues regarding the plant with the **NRC** staff, "the **NRC** has refused to consider ...

[International Business Times](#)

[See all stories on this topic »](#)

Appellate Court Wants More Information About Oyster Creek, Tsunamis and ...

Patch.com

By Patricia A. Miller | Email the author | 1:04pm The 3rd Circuit Court of Appeals has directed lawyers for the federal **Nuclear Regulatory Commission** to provide more information about the "propriety" of re-licensing the Oyster Creek Nuclear Generating ...

[See all stories on this topic »](#)

Good Ed, Bad Ed

Boston Globe

AMID THE ongoing nuclear worries in Japan, Representative Ed Markey was bracingly outspoken. He sounded a wise note of caution about domestic nuclear power, pressuring both President Obama and the **Nuclear Regulatory Commission** to force nuclear power ...

[Boston Globe](#)

[See all stories on this topic »](#)

Officials and operators of US **nuclear** power plants owe the public proof they ...

New York Daily News

Which is why Entergy, which owns Indian Point, and the **Nuclear Regulatory Commission** must go the extra mile to satisfy the public that they're taking every conceivable precaution. Against earthquakes, for example. Entergy says Indian Point can survive ...

[New York Daily News](#)

[See all stories on this topic »](#)

Am/20

Tip: Use quotes ("like this") around a set of words in your query to match them exactly. [Learn more](#).

[Remove](#) this alert.

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From: Google Alerts
To: Hayden, Elizabeth
Subject: Google Alert - Nuclear Regulatory Commission
Date: Thursday, March 24, 2011 1:51:26 AM

News

5 new results for **Nuclear Regulatory Commission**

Gov. Cuomo Gets Pledge to Review Indian Point

theLoop

Two top members of Governor Cuomo's administration — including Lieutenant Governor Duffy — met with senior staff at the US **Nuclear Regulatory Commission (NRC)** this week about Indian Point. In light of the disaster in Japan, and because Indian Point's ...

[See all stories on this topic »](#)



[theLoop](#)

NRG Energy slows down plans to expand in Bay City

Victoria Advocate

The entire nuclear power industry gave a shudder as the disaster at the Fukushima Daiichi unfolded two weeks ago, and the **Nuclear Regulatory Commission** has been looking at safety regulations at nuclear power plants across the country. ...

[See all stories on this topic »](#)

Nuclear Radation Center stays well prepared

The Daily Evergreen

Operators are trained on a site-specific reactor and are individually licensed for only that reactor through the US **Nuclear Regulatory Commission**. While Corey and Henry declined to comment about security, they said the reactor does not run all the time ...

[See all stories on this topic »](#)

Japan residents' woes felt sorely in sister city

Boston Globe

Turning down that renewal may represent "low-hanging fruit" if the **Nuclear Regulatory Commission** chooses to demonstrate concern over America's aging reactors in light of events in Japan, Abbott said. Long a vocal critic of the design of the Pilgrim ...

[See all stories on this topic »](#)



[Boston Globe](#)

Japan **Nuclear** Crisis Revives Long US Fight on Spent Fuel

Pittsburgh Post Gazette

President Obama promised to cancel the project during his 2008 campaign, and last year he told the Department of Energy to withdraw an application that it had submitted to the **Nuclear Regulatory Commission** for a construction license. ...

[See all stories on this topic »](#)

Tip: Use a minus sign (-) in front of terms in your query that you want to exclude. [Learn more.](#)

[Remove](#) this alert.

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[Manage](#) your alerts.

Am/21

From: Jasinski, Robert
To: Hayden, Elizabeth
Subject: RE: Latest USNRC Press Release on Japan Assessment
Date: Thursday, March 24, 2011 5:29:36 AM

Thanks, Beth. Still want to have lunch but, with the Japanese event, the normal daily work and my back (which has several herniated discs), time is tight right now.

TTY soon...Regards, Bob.

From: Hayden, Elizabeth [mailto:Elizabeth.Hayden@nrc.gov]
Sent: Wednesday, March 23, 2011 6:16 PM
To: 'wgpcnews@oecd-nea.org'
Subject: [wgpcnews] Latest USNRC Press Release on Japan Assessment

Dear all,

For your information, here is our press release announcing NRC's plans for reviewing the Japan event. <http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-055.pdf>

Regards,
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

A^m/22

From: Sheryl Paul
To: Hayden, Elizabeth
Subject: Platts European Nuclear Power: From Debate to Deployment...to Debate again?
Date: Thursday, March 24, 2011 6:05:49 AM

If your email program has trouble displaying this email, [view it as a web page](#).



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What is the Current Strength of Europe's Nuclear Power Renaissance?

- Find out at this year's leading European nuclear power event -



Dear Beth,

Platts **6th Annual European Nuclear Power** conference will once again get to the very heart of the issues and unite the international nuclear power community in its effort to rebuild its reputation as a safe and secure energy source. The conference will provide attendees with a comprehensive overview of the industry and its current strength while providing unrivalled status reports from those nations who have been looking to reestablish nuclear power as a prominent part of their energy mix. *How will the industry respond to the lessons of Fukushima? How has Fukushima impacted the future role of nuclear power within Europe? What will the regulatory landscape now look like? What will the UK, Germany, Switzerland, Italy, Poland and the Czech Republic do next?* **All key questions to be discussed at this year's event.**

The conference will enable attendees to:

- **Evaluate** how Fukushima is impacting the strength of Europe's nuclear power renaissance
- **Hear** how the industry is responding to the lessons learned from Fukushima
- **Receive** up to date development updates from the UK, Switzerland, Italy, Czech Republic, Poland, France, Germany, China and the US
- **Understand** the latest in reactor design strengths and safety
- **Identify** how future policy frameworks are now evolving
- **Learn** how safety and performance can be achieved through innovation, quality system management and long term support
- **Discover** whether small modular reactors offer a real solution to Europe



New Keynote Speaker Just Added!

Am/23

Peter Lyons, Assistant Secretary for Nuclear Energy, **US Department of Energy** will provide an update on **nuclear power in the United States**

Peter joins an already exclusive speaker faculty which includes:

**EDF - Alpiq - RWE Technology - CEZ - EDF Engineering and Generation - E.ON
Kernkraft - PGE - Nuclear Energetyczna - AREVA Group - GE Hitachi Nuclear
Energy - Westinghouse - ENEL / Sviluppo Nucleare Italia - Centrica Energy -
ENEL - China Nuclear Power Engineering Co. - European Commission - Tractebel
Engineering - Rolls-Royce - Nuclear Quality Standard Association (NQSA) -
Barclays Capital - HSBC Bank - NuScale Power - PA Consulting Group - Platts**

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2. Call our Customer Service Team on +44 (0) 20 7176 6300
3. Email your contact details to **conf_registrations@platts.com**
4. **Download a copy of the event PDF** and fax the booking form back to us on +44 207 176 8512

I look forward to seeing you again in Prague in June.

Kind regards,

Sheryl Paul
Marketing Manager
Platts EMEA Conference Division
REF: PC172EM3

PS - Don't forget to register before 6th May to save \$200

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Platts Logo



From: Hayden, Elizabeth
To: Brenner, Eliot
Subject: Re: EpA/NRC press release
Date: Thursday, March 24, 2011 7:56:43 AM

Be in shortly

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

From: Brenner, Eliot
To: Hayden, Elizabeth
Sent: Thu Mar 24 07:52:35 2011
Subject: RE: EpA/NRC press release

I missed the call.

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

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 7:52 AM
To: Brenner, Eliot
Subject: EpA/NRC press release

Per thisMornioing call

Am/24

From: Janbergs, Holly
To: Hayden, Elizabeth
Subject: RE: Press releases related to dose
Date: Thursday, March 24, 2011 8:17:43 AM

I pulled out links for all documents containing rem measurements that I could get to from the Japan FAQ page and following links therein. Do you want me to look at other areas of the site as well?

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 7:01 PM
To: Janbergs, Holly
Subject: FW: Press releases related to dose

Bethany,

Please take a look through the information on our web homepage to see which documents should include the SI designation added to the US designation of "rems, millirems," and show me a list sometime tomorrow. Also, let's spend a few minutes to go over the central allowance meeting.

Thank you

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: Patterson, Malcolm
Sent: Wednesday, March 23, 2011 5:13 PM
To: Hayden, Elizabeth
Subject: RE: Press releases related to dose

Beth

Thanks for your suggestion; we'll see what we can do to add SI designations.

There are many reliable converters on line, and many units that can be converted by Excel, but press releases are prepared in Word.

There *is* a utility for automatically translating units from one system to another **built into MSWord 2007**,

1. Enter the value once
2. Copy it, then paste it between parentheses or brackets as appropriate. (This practice prevents transcription errors—you can see that you have correctly copied the quantity because at this point, it should appear identical to the original.)

Am/ 25

3. If **MSWord** recognizes a numeral-unit combination, the value will be marked with a **Smart Tag**.
4. Clicking on the **Smart Tag** icon will result in a pick list of one or more options.
(Typically, more than one alternative unit may be proposed, e.g., an expression in acres will be converted to both hectares and square meters.)

Example:

1 acre 1 acre 1 acre

is instantly converted like this:

1 acre 0.40 hectares 4,046.9 m²

The only problem is that Word does not recognize many of the units of interest. Users can modify a file, metconv.txt, in accordance with the instructions in a file mcabout.htm to perform the conversions we need.

In view of the high visibility associated with any numbers we publish, all modifications to the metconv.txt file should be performed and reviewed by appropriately qualified individuals, and approved for use by their supervisor. I would suggest that there should be conversation between these people and OPA to determine what conversions would be most urgently needed.

Malcolm

From: Hardy, Sally
To: Hayden, Elizabeth
Subject: Japan page update
Date: Thursday, March 24, 2011 9:07:03 AM

Beth

We played around with the bullets this morning for the yellow box and we got it to work were it looks nice now. We will post this morning with the bullets added. Also I sent you an email last night about the link you wanted to add, can you take a look at that email and let me know if that's how you wanted the link to display.

Thanks
Sally

Am/26

From: Janbergs, Holly
To: Hayden, Elizabeth
Subject: RE: Press releases related to dose
Date: Thursday, March 24, 2011 9:09:15 AM

<http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-050.pdf>
<http://pbadupws.nrc.gov/docs/ML1107/ML110740628.pdf>
<http://www.nrc.gov/about-nrc/radiation/related-info/faq.html> (also needs an update on number of agreement states)
<http://www.nrc.gov/about-nrc/radiation/around-us/sources.html>
<http://www.nrc.gov/about-nrc/radiation/around-us/uses-radiation.html>
<http://www.nrc.gov/about-nrc/radiation/around-us/sources/man-made-sources.html>
<http://www.nrc.gov/about-nrc/radiation/rad-health-effects.html>
<http://www.nrc.gov/about-nrc/radiation/health-effects/measuring-radiation.html>
<http://www.nrc.gov/about-nrc/radiation/health-effects/info.html>
<http://www.nrc.gov/about-nrc/radiation/health-effects/high-rad-doses.html>

Those are all that I got from looking at the Japan file/following through on links from there.

Let me know when you're free (and caffeinated =P)

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 7:01 PM
To: Janbergs, Holly
Subject: FW: Press releases related to dose

Bethany,

Please take a look through the information on our web homepage to see which documents should include the SI designation added to the US designation of "rems, millirems," and show me a list sometime tomorrow. Also, let's spend a few minutes to go over the central allowance meeting.

Thank you

*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: Patterson, Malcolm
Sent: Wednesday, March 23, 2011 5:13 PM
To: Hayden, Elizabeth
Subject: RE: Press releases related to dose

Am/27

Beth

Thanks for your suggestion; we'll see what we can do to add SI designations.

There are many reliable converters on line, and many units that can be converted by Excel, but press releases are prepared in Word.

There *is* a utility for automatically translating units from one system to another **built into MSWord 2007**,

1. Enter the value once
2. Copy it, then paste it between parentheses or brackets as appropriate. (This practice prevents transcription errors—you can see that you have correctly copied the quantity because at this point, it should appear identical to the original.)
3. If **MSWord** recognizes a numeral-unit combination, the value will be marked with a **Smart Tag**.
4. Clicking on the **Smart Tag** icon will result in a pick list of one or more options. (Typically, more than one alternative unit may be proposed, e.g., an expression in acres will be converted to both hectares and square meters.)

Example:

1 acre 1 acre 1 acre

is instantly converted like this:

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The only problem is that Word does not recognize many of the units of interest. Users can modify a file, metconv.txt, in accordance with the instructions in a file mcabout.htm to perform the conversions we need.

In view of the high visibility associated with any numbers we publish, all modifications to the metconv.txt file should be performed and reviewed by appropriately qualified individuals, and approved for use by their supervisor. I would suggest that there should be conversation between these people and OPA to determine what conversions would be most urgently needed.

Malcolm

Good morning. This is a vitally important meeting for the Commission and the country.

First, I want to extend my deepest sympathies to the people of Japan. The consequences and loss of life from the earthquake and tsunami are simply devastating. I am fully mindful of the valiant efforts of the workers and first responders at the Fukushima site who have directly faced the challenges of this tragic event. Our thoughts and prayers are with all.

Let me also commend and thank the Chairman, the EDO, and the NRC staff for their efforts to date in supporting the NRC's monitoring and assistance associated with events in Japan. I appreciate the hard work going on 24/7 at the NRC Operations Center since March 11. I have been impressed with the technical competence and professionalism demonstrated by the NRC staff.

I am also grateful for the highly competent team of NRC experts dispatched to assist our Japanese friends. While dismayed by the tragedy, at the same time as a Commissioner I am extraordinarily proud of the commitment of the NRC team to proactively provide assistance to Japan.

The events that have unfolded at the Fukushima Daiichi nuclear power plant over the last 10 days are stark and have caused me to deeply reflect on my responsibilities as a regulator of the US nuclear industry. On one hand, I believe that our existing licensing and oversight activities assure us that the 104 commercial nuclear power plants in this country are safe. On the other hand, I know that we must (and most certainly will) conduct a thoughtful and rationale examination of the NRC's regulatory framework with the information and lessons learned resulting from the incidents in Japan. I do not think the NRC can wait until every lesson learned is identified before starting this important work. Rather, I believe it is appropriate for the NRC to conduct a timely and focused review of our regulatory framework in the key areas relevant to what we know-and will come to know as lessons emerge- about what happened at the Fukushima site. [While we will hear shortly from the NRC staff on this topic, I believe that topics such as beyond design basis events and severe accident mitigation are potential areas that might receive focused attention].

I was also encouraged that the US nuclear industry has taken some proactive steps to verify and walk down capabilities at their sites. It will be important that the NRC remains engaged with the industry on the follow up activities related to this unprecedented event in Japan.

As we head down this path, I know that we all must be mindful of the challenges ahead. As stated by the Chairman several times in recent days, we need to conduct a thoughtful and systematic review. And, we need to do this in a way that clearly and effectively communicates to the American people what this event means for the safety of commercial nuclear power plants in the United States.

Thank you.

From: [Laura Scheele](#)
To: [Brenner, Eliot](#); [Hayden, Elizabeth](#)
Cc: cpiercy@bosepublicaffairs.com
Subject: ANS - Crisis Communications
Date: Thursday, March 24, 2011 11:26:16 AM

Thank you for the communications in the early hours of the Fukushima events occurring. Although events overtook our planning process for ANS crisis communications, the preliminary groundwork we laid was extremely helpful in terms of the American Nuclear Society response. That said, ANS has its work cut out in terms of formalizing processes and procedures to be better prepared going forward.

When we met last month, you mentioned that I would be invited to observe the annual emergency planning exercise. What do you need from me in order to make that happen? This is now a very high priority within ANS, and we very much would the opportunity to examine the plans we are still in the process of developing.

Sincerely,

Laura Scheele
American Nuclear Society
Phone: (708) 579-8224
ANS Nuclear Cafe Blog: <http://ansnuclearcafe.org>

Am/28

From: [Harrington, Holly](#)
To: [Ellmers, Glenn](#); [Hayden, Elizabeth](#)
Subject: RE: Material for NRC Reporter
Date: Thursday, March 24, 2011 9:56:41 AM

Glenn – you can come by and see me some time and I'll sprout stats and info for you. To be honest, I don't have time to put it in writing . . .

Holly

From: Ellmers, Glenn
Sent: Thursday, March 24, 2011 9:47 AM
To: Harrington, Holly; Hayden, Elizabeth
Subject: Material for NRC Reporter

In case you haven't heard, I'm taking over the Reporter from Ann, who is retiring next week. (Good timing, eh?) I'd like to have some stuff in next week's edition about the 1) NRC response to the overwhelming inquiries from media and the public, and the fortunate timing in having a blog, along with some updated stats. And 2) Anything interesting about how the calls are starting to change in tone and substance (picking up on the comment in last night's Tomorrow's News Tonight). This will go out Wednesday of next week. I can plug in updated numbers as late as Tuesday afternoon. Any help would be appreciated!

Glenn Ellmers
Senior Communications Specialist, OEDO
301-415-0442
OWFN - 17F03
Mail stop: 016E15

Am/29

From: Hayden, Elizabeth
To: Hardy, Sally
Subject: RE: Format for Japan Page
Date: Thursday, March 24, 2011 10:00:00 AM

It looks good. "One thing I overlooked—Please change "Commission Correspondence Activity"

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: Hardy, Sally
Sent: Wednesday, March 23, 2011 8:08 PM
To: Hayden, Elizabeth
Subject: RE: Format for Japan Page

I'll make the changes and post the new format live tonight.

We can add the bullets but it pushed everything over to the right, we thought it looked a little better without them. If you would like to see what it looks like I can add to the test server and if you prefer the bullets we can add them and repost tomorrow etc.

Sally

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 6:57 PM
To: Hardy, Sally
Subject: RE: Format for Japan Page

Let's go with the first one where the box in the upper right corner has the Blog and FAQs. Make the following changes inside the box: just list "FAQs" (don't spell it out). List first FAQ as: Japan Earthquake & Tsunami. Then follow with the rest. Should we put small bullets in front of the different groups of FAQs?

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: Hardy, Sally

Am/30

Sent: Tuesday, March 22, 2011 12:18 PM
To: Hayden, Elizabeth
Subject: RE: Format for Japan Page

Take a look at these...

<http://webwork.nrc.gov:300/japan/japan-info5.html>

<http://webwork.nrc.gov:300/japan/japan-info4.html>

Let me know what you think.....

Sally

From: Hayden, Elizabeth
Sent: Tuesday, March 22, 2011 9:58 AM
To: Hardy, Sally
Subject: RE: Format for Japan Page

Thanks. I'll be in a meeting from 10:30 to noon. Don't be afraid to be creative or look to the new webredesign for ideas.

Beth

From: Hardy, Sally
Sent: Tuesday, March 22, 2011 9:50 AM
To: Hayden, Elizabeth
Subject: RE: Format for Japan Page

I'm working on some samples to send you....should have something to you later this morning.

Sally

From: Hayden, Elizabeth
Sent: Tuesday, March 22, 2011 9:34 AM
To: Hoffman, Joan; Hardy, Sally
Subject: Format for Japan Page

Joan,

Has anyone come up with a better format for the information on the Japan page?

Beth

From: Hardy, Sally
To: Hayden, Elizabeth
Subject: RE: What's New on the CDC Emergency Preparedness & Response Site
Date: Thursday, March 24, 2011 10:00:12 AM

Thanks

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 9:58 AM
To: Hardy, Sally
Subject: RE: What's New on the CDC Emergency Preparedness & Response Site

That's fine. As long as the link goes directly to the webpage that is relevant.

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: Hardy, Sally
Sent: Wednesday, March 23, 2011 8:07 PM
To: Hayden, Elizabeth
Cc: Harrington, Holly
Subject: RE: What's New on the CDC Emergency Preparedness & Response Site

Do you want this listed under Other Sources and should it be listed as:

CDC - Emergency Preparedness and Response and link to http://emergency.cdc.gov/Radiation/?s_cid=emergency_001

We don't usually just list the URL

Let me know and I'll add.

Thanks
Sally

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 6:46 PM
To: Hardy, Sally
Cc: Harrington, Holly
Subject: RE: What's New on the CDC Emergency Preparedness & Response Site

Yes, let's add to the bottom of our Japan page as http://emergency.cdc.gov/Radiation/?s_cid=emergency_001

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: Hardy, Sally
Sent: Tuesday, March 22, 2011 2:57 PM
To: Hayden, Elizabeth
Cc: Harrington, Holly
Subject: FW: What's New on the CDC Emergency Preparedness & Response Site

Hi Beth

If you want this added to the Japan page, let us know.

Am/31

Thanks
Sally

From: Harrington, Holly
Sent: Tuesday, March 22, 2011 2:28 PM
To: Hardy, Sally; Hoffman, Joan; Leong, Edwin; Ousley, Elizabeth
Subject: FW: What's New on the CDC Emergency Preparedness & Response Site

Sorry to send to so many folks, but not sure who should consider this.
Do we want to put this badge on the home page? On the Japan page? Or on our blog?

From: Temple, Jeffrey
Sent: Tuesday, March 22, 2011 2:24 PM
To: Harrington, Holly; Milligan, Patricia
Subject: FW: What's New on the CDC Emergency Preparedness & Response Site

Thought you might enjoy seeing what CDC has come up with. Jeff Temple

From: CDC [mailto:cdc@service.govdelivery.com]
Sent: Tuesday, March 22, 2011 2:16 PM
To: Temple, Jeffrey
Subject: What's New on the CDC Emergency Preparedness & Response Site

CDC has a key role in protecting the public's health in an emergency. CDC has created a Radiation Badge that you can copy and paste into your website, social network profile, blog, or email to provide people with access to information about radiation and health. Learn more about using [buttons and badges](#)!

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From: Harrington, Holly
To: Hayden, Elizabeth
Subject: FW: Joseph Jankiewicz calling on behalf of Senator Feinstein
Date: Thursday, March 24, 2011 10:02:20 AM

See Spiros' comment

From: Droggitis, Spiros
Sent: Thursday, March 24, 2011 9:59 AM
To: Harrington, Holly
Subject: Re: Joseph Jankiewicz calling on behalf of Senator Feinstein

Good idea. I notice yesterday's press release and SRM, paper, etc. are not on the Japan link. May want to consider adding at least the press release.

From: Harrington, Holly
To: Burnell, Scott; LIA12 Hoc; Powell, Amy; OPA Resource
Cc: Droggitis, Spiros
Sent: Thu Mar 24 09:53:51 2011
Subject: RE: Joseph Jankiewicz calling on behalf of Senator Feinstein

If you are able to put an "out of office with direction to another e-mail" notice on that liaison team email box, that might also help in case I don't get the message to everyone . . .

From: Burnell, Scott
Sent: Thursday, March 24, 2011 7:33 AM
To: LIA12 Hoc; Harrington, Holly; Powell, Amy; OPA Resource
Cc: Droggitis, Spiros
Subject: RE: Joseph Jankiewicz calling on behalf of Senator Feinstein

Of course -- How about a general address -- OCA OPS Resource?

From: LIA12 Hoc
Sent: Thursday, March 24, 2011 7:27 AM
To: Harrington, Holly; Burnell, Scott; Powell, Amy
Cc: Droggitis, Spiros
Subject: FW: Joseph Jankiewicz calling on behalf of Senator Feinstein

Holly/Scott: We are shutting down our Ops Center coverage after our last shift on Friday afternoon, so could you please forward future such requests to either Amy or my email addresses so they don't get lost in LIA land?

Thanks, Spiros

From: Harrington, Holly
Sent: Wednesday, March 23, 2011 11:56 AM
To: LIA12 Hoc
Subject: FW: Joseph Jankiewicz calling on behalf of Senator Feinstein

Another one for OCA . . .

Am/32

From: Ghneim, Munira
Sent: Wednesday, March 23, 2011 11:54 AM
To: Harrington, Holly
Subject: Joseph Jankiewicz calling on behalf of Senator Feinstein

Contact – Joseph Jankiewicz calling on behalf of Senator Feinstein (CA)
Phone – 202-224-9642
Email – joseph_jankiewicz@feinstein.com
Request – Would like to know what to tell constituents in a worst case scenario

Thank You
Munira Ghneim
Contract Secretary
Office of Information Services
301-415-1170

From: [Google Alerts](#)
To: [Hayden, Elizabeth](#)
Subject: Google Alert - Nuclear Regulatory Commission
Date: Thursday, March 24, 2011 10:07:13 AM

News

3 new results for **Nuclear Regulatory Commission**

San Onofre Operators Welcome **NRC** Review

KPBS

By Ed Joyce The **Nuclear Regulatory Commission** has launched a two-step review of all US nuclear power plants in the wake of the nuclear crisis in Japan. Above: San Onofre Nuclear Generating Station is a nuclear power plant located on the Pacific coast ...

[See all stories on this topic »](#)

NY pols sound new alarms on Indian Point

New York Post

The **Nuclear Regulatory Commission** is "not required to take into account factors like population, national security and evacuation plans in determining the relicensing of aging nuclear power plants like Indian Point," said Rep. ...

[See all stories on this topic »](#)

US **Nuclear** Output Little Changed as Entergy Boosts FitzPatrick

Bloomberg

(ETR) boosted the FitzPatrick reactor in New York and Public Service Enterprise Group Inc. (PEG) slowed Salem 2 in New Jersey, the **Nuclear Regulatory Commission** said. Power generation nationwide increased by 209 megawatts from yesterday to 85393 ...

[See all stories on this topic »](#)

Tip: Use quotes ("like this") around a set of words in your query to match them exactly. [Learn more.](#)

[Remove](#) this alert.

[Create](#) another alert.

[Manage](#) your alerts.

Am/33

From: Harrington, Holly
To: Brenner, Eliot; Hayden, Elizabeth
Subject: RE: for tomorrow
Date: Thursday, March 24, 2011 11:16:08 AM

I didn't think we'd have anyone in. I was suggesting that we divide the weekend days so you are not spending too much time on work this weekend, but if you want to pull the duty alone, it's your call. I think it would be good for you to check the voice mail just to make sure there is nothing there that is absolutely necessary to respond to over the weekend. I know you already check your bb

From: Brenner, Eliot
Sent: Wednesday, March 23, 2011 5:20 PM
To: Harrington, Holly; Hayden, Elizabeth
Subject: RE: for tomorrow

I don't feel the need to come in. I can handle it over the weekend. If I get swamped, I'll call for a little help. Just fyi, the chairman said this situation could get worse before it gets better.

From: Harrington, Holly
Sent: Wednesday, March 23, 2011 5:01 PM
To: Hayden, Elizabeth; Brenner, Eliot
Subject: RE: for tomorrow

I would move to the OP Center at 5 to keep a presence there, pick up voice mail, etc.

I will make you a copy of the calendar that I did for myself (I found the online calendar confusing for my purposes.)

I have not made arrangement for someone to pull this "swing" shift for Friday. I cannot personally do it. I was assuming Scott could not due to train schedules. I did not ask Dave . . .

We still need to talk about weekend coverage. The Op Center will still be going, but I think OCA is not staffing and we're with them. Eliot – you have duty. I was thinking we could split the duty so one person isn't stuck with all the work. Probably whomever is on duty should check the voice mail once or twice and monitor BB . . .

From: Hayden, Elizabeth
Sent: Wednesday, March 23, 2011 4:43 PM
To: Harrington, Holly; Brenner, Eliot
Subject: RE: for tomorrow

Are you staying here or in the Ops Center? Are we going to have someone late for Friday? Do you have a copy of the calendar showing office/PA coverage?

Am/34

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: Harrington, Holly
Sent: Wednesday, March 23, 2011 1:30 PM
To: Brenner, Eliot; Hayden, Elizabeth
Subject: for tomorrow

I'm thinking about working a later shift tomorrow, like 10-7 to give us a little later night coverage. Roger said he took some calls after close of business yesterday, and we'll lose him after tonight.

From: [Harrington, Holly](#)
To: [Garrity, Paula](#)
Cc: [Hoffman, Joan](#); [Lee, Jun](#); [Hayden, Elizabeth](#); [Partlow, Benjamin](#)
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting)
Date: Thursday, March 24, 2011 11:28:39 AM
Attachments: [image001.png](#)

Paula – Due to our overwhelming focus on the Japan events and my inability to focus on anything else for the time being, can you resend this information to me at the end of the month? At that time, hopefully, I'll have the brain space to update the press release and write the blog post . . .

Thank you for understanding.

Holly

From: Garrity, Paula
Sent: Thursday, March 24, 2011 10:27 AM
To: Harrington, Holly
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Garrity, Paula; Partlow, Benjamin
Subject: FW: Technology Transfer article for the Public Site Redesign (input for Blog posting)

Hi Holly,

As promised, I've attached the *Technology Transfer* article for the redesign, which should give you some good material for the Blog posting. Debbie plans to publish the Spring issue of *Technology Transfer* next Thursday (3/31) or the 1st week in April.

Please note that we'll need to change the link to the Redesign video before you finalize the Blog posting; I'll send you that change as soon as we confirm the URL.

Based on the latest revision of our Comm Plan, we're scheduled to post the Blog on April 12th, along with a Home page Highlight with a link to the video. We'll issue the related Network Announcement the same day, and we'll post the following banner highlight to the internal site with links to the video and your Blog posting. Your press release should follow on April 18th to officially unveil the redesigned site, and we'll add a link to that press release from our Open Gov site.



Please let me know if you have any concerns with this planned timeline.

Hope this helps,

Paula

Am/35

Riley (OCA), Timothy

From: CQ Homeland Security [cqhlis-owner@cqrollcall.com]
Sent: Wednesday, April 13, 2011 7:01 AM
To: Riley (OCA), Timothy
Subject: CQ Homeland Security



CQ Homeland Security DAILY

News | People | Bills | Regs | Search | E-Mail Alerts

April 13, 5:35 a.m. | Rob Margetta, Editor

Print Issue

Military Strategists Say Afghanistan Experiences Shaped Counterterror Strategy

The Defense Department officials tasked with confronting terrorist threats and narcotics trafficking said Tuesday they have adapted their tactics to suit situations they have encountered in the Middle East and North Africa, and they are viewing transnational crime as a "nexus" that can be attacked on several levels.

» READ | By Rob Margetta

Panel Decision on 'D Block' Moving to Back Burner

Despite cries for urgency from public safety officials, a leader on the House Energy and Commerce Committee said Tuesday that there is no rush to make a decision on the "D Block" of the radio spectrum.

» READ | By Jennifer Scholtes

FROM THE CQ NEWSROOM

Technology Sector, House Republicans Wary of Kerry's Online Privacy Measure

Massachusetts Democrat John Kerry has jump-started the Senate debate over whether Congress should enact a comprehensive online privacy law by introducing legislation aimed at protecting data both online and offline.

» READ | By Keith Perine

Hagan Urges Combat Roles for Women, Following on Commission Report

Women in the military should be allowed to serve in combat jobs that are now off-limits to them, a leading member of the Senate Armed Services Committee said Tuesday.

» READ | By John M. Donnelly

Our Read of the Other Media's Homeland Security Coverage

Schedule

All scheduled events, today and future

► Around Washington

New America Foundation will hold a discussion titled "**Crisis in the States and Cities: What Should Be Done?**" 11:30 a.m., Hyatt Regency Hotel, 400 New Jersey Ave. NW

Immigration Policy Center will hold a news conference call to discuss a report titled "**Department of Homeland Security Progress Report: An Analysis of Immigration Policy in the Second Year of the Obama Administration.**" 1 p.m., Dial-in: 800-862-9098; Access code: 7DHS

Woodrow Wilson International Center for Scholars will hold a discussion titled "**The NATO-EU-Russia Triangle: Different Perceptions and Approaches to International Security.**" 3:30 p.m., 6th floor Flom Auditorium, Woodrow Wilson Center, 1300 Pennsylvania Ave. NW

► Congress

The Senate will convene at 10 a.m. Senate Armed Services will hold a hearing on the defense authorization request for the **U.S. Pacific Command; U.S. Forces Korea.** Note: There is a possibility of a closed session in Room SVC-217 after the open session. 10 a.m., 106 Dirksen

The Clean Air and Nuclear Safety Subcommittee and the full Senate Environment and Public Works panel will hold a hearing titled "**Review of**"



Headless in Gaza: "Decapitation attacks from terrorists or natural disasters that could paralyze Washington are low-probability, high-impact events" . . . Unwelcome mat: To judge by DHS's treatment of visa seekers, the United States "no longer wants to attract skilled immigrants" . . . The weakest link: "Inadequate screening technology internationally poses a threat to domestic security," solon says. These and other stories lead today's homeland security coverage.

» READ | By David C. Morrison

the Nuclear Emergency in Japan and Implications for the U.S.."
2:45 p.m., 406 Dirksen
The House will convene at noon.

Tuesday, April 12

Since the Newsletter

Afternoon Take: Congress to Vote on Homeland Security Spending Cuts

Before lawmakers head home Friday for a two-week recess, the House and Senate are scheduled to hold votes on the appropriations measure that would cut \$39.9 billion from discretionary accounts, including significant reductions to homeland security activities.

» READ | By Chad Brand

First-Responders Lose Funding Under Spending Compromise

Homeland security grants to state and local police, firefighters and other emergency responders would take a big hit under a fiscal 2011 spending compromise ([HR 1473](#)), but the \$815 million cut from fiscal 2010 is smaller than House Republicans sought.

» READ | By Tim Starks

Modernization of Nuclear Stockpile Gets Full Funding

A nuclear weapons modernization program that was at the center of the debate over arms control policy last year would be fully funded under the fiscal 2011 spending bill ([HR 1473](#)) released early Tuesday morning.

» READ | By Emily Cadei

Spending Bill Would Enact Historic Defense Budget Cuts

In a deal that would reduce defense spending for the first time since the 1990s, leaders on both ends of Pennsylvania Avenue agreed on a measure released early Tuesday morning that would provide \$513 billion in base defense spending, roughly \$18 billion less than the \$531 billion enacted in fiscal 2010.

» READ | By Frank Oliveri

CQ Transcripts



Northern Africa, Middle East, Central Asia

- [Secretary of State Clinton Holds Media Availability with Finland Foreign Minister Cai-Goran Alexander Stubb](#)

- [Foundation for Defense of Democracy Vice President of Research Jonathan Schanzer Interviewed on Fox News](#)

- [State Department Holds Regular News Briefing](#)

Development Contracting

- [Commission on Wartime Contracting in Iraq and Afghanistan Holds Hearing](#)
- [U.S. Pacific Command, Korea Forces Budget](#)
- [Senate Armed Services Holds Hearing on the Defense Authorization Budget Request for Fiscal 2012 and Future Years for the U.S. Pacific Command and U.S. Forces-Korea](#)

Lawmakers Aim to Narrow Scope of Electric Infrastructure Bill

Keep the bill specific, keep the message simple — that's the latest strategy of lawmakers hoping to enact legislation that would help secure the nation's electric infrastructure from terrorist attacks and solar flares.

» READ | By Jennifer Scholtes

New York Venture Looks to Connect Homeland Security Technology Makers With Users

Since the creation of the Department of Homeland Security, developers of homeland security-related technology have faced two persistent challenges: how to improve cooperation between the public and private sectors at the development level, and how to connect with the state and local responders who make up the majority of the market.

» READ | By Rob Margetta

Lawmakers Urge Obama to Staff Inactive Privacy Board

Leaders from the Senate Homeland Security and Governmental Affairs Committee said Monday that the Obama administration has dragged its feet in appointing members to the Privacy and Civil Liberties Oversight Board, rendering it useless.

» READ | By CQ Staff

FROM THE CQ NEWSROOM

Congress Is of Two Minds on Egypt's Quest for Debt Relief

Egyptian officials are scheduled to visit Washington this week to request relief from their country's \$3.3 billion debt to the United States. Their timing could not be worse, or more opportune, depending on whom they talk to.

» READ | By Jonathan Broder

Our Read of the Other Media's Homeland Security Coverage



Exclusion accomplished: DHS has barred more than 350 people suspected of terror ties from boarding U.S.-bound flights since the end of 2009 . . . Going postal codes: Companies and biz groups

not thrilled by "bring your gun to work" laws passed by 13 states thus far . . .

Terrorists, don't even bother: "Nuclear power stations are essentially an industrial setting inside a military installation during wartime activity." These and other stories lead today's homeland security coverage.

» READ | By David C. Morrison

Monday, April 11

Afternoon Take: WikiLeaks Nuclear Disclosure Could Affect U.S. Policy on Syria

New revelations from Wikileaks could spur lawmakers to renew their pressure on

the Obama administration to take a firmer hand against Syria.

» READ | By Chad Brand

CQ Transcripts



Libya

- [Retired Army Maj. Gen. James "Spider" Marks Interviewed on Fox News](#)

Islamic Extremism

- [Rep. Peter T. King Interviewed on Fox News](#)

X-Ray Scanners Safe, but Need Review, Researcher Says

Rebecca Smith-Bindman, a radiology professor at the University of California, San Francisco, says she was nervous when the Transportation Security Administration began deploying X-ray whole body scanners, so she took her expertise in medical imaging radiation and applied it to the "backscatter" scanners.

» READ | By Rob Margetta

The Week in Homeland Security: Congress Turns Focus to Electric Infrastructure Security

Congressional lawmakers will meet with electric infrastructure security experts and government officials from around the world to discuss methods for protecting national systems from malicious attacks and geomagnetic storms.

» READ | By Jennifer Scholtes

Inspector General Finds Flaws in Trade Expediting Program

Homeland Security officials have called the increased use of trusted shipper programs one of their top international trade priorities, but the department's inspector general found that one such initiative is insufficiently resourced. According to a recent report, security issues exist within a system that expedites low-risk shipments to the United States from Canada and Mexico.

» READ | By CQ Staff

People on the Move



Douglas Dziak has been hired as counsel for Nixon Peabody. . .

Richard W. Beckler has joined Bracewell and Giuliani as a partner in its white-collar defense, internal investigations and regulatory

enforcement practice. . . **Jana Denning** has joined Lockheed Martin as a director of aviation and transportation programs.

» READ | By CQ Staff

FROM THE CQ NEWSROOM

Unmanned Planes Take Off

Unmanned aircraft are mostly associated with fighting terrorists in Iraq and Afghanistan. But the aircraft industry hopes a bill to reauthorize the Federal Aviation Administration will expand use of the machines in the United States.

» READ | By Shawn Zeller

Republican Budget Proposal Embraces Only Part of Divided Aid Request

House Budget Chairman Paul D. Ryan's fiscal 2012 budget proposal signals that Republican leaders have accepted the administration's argument that foreign assistance and diplomacy are critical components of national security. But GOP

support for that position extends only to activities in discrete conflict zones.

» READ | By Emily Cadei

Senators Close to Finishing Libya Resolution; Likelihood of Vote Unclear

Foreign Relations Chairman John Kerry, D-Mass., said that he and several colleagues are "pretty much finalized on the language" of the resolution and are "ready if we need to do something." The question remains whether senators will decide that such a resolution is, in fact, a necessity.

» READ | By Emily Cadei

Our Read of the Other Media's Homeland Security Coverage



Watching the detectives: "TSA behavioral detection officers failed to detect terrorists at U.S. airports on nearly two dozen occasions"

. . . New York, New York: "Some of the most heavily trafficked bridges, tunnels and transit hubs in the world are vulnerable to terrorist attacks" . . . This week's reason to lie awake at night: "A tractor-trailer filled with hazardous materials could be terrorists' next weapon of mass destruction." These and other stories lead today's homeland security coverage.

» READ | By David C. Morrison

BRIEF

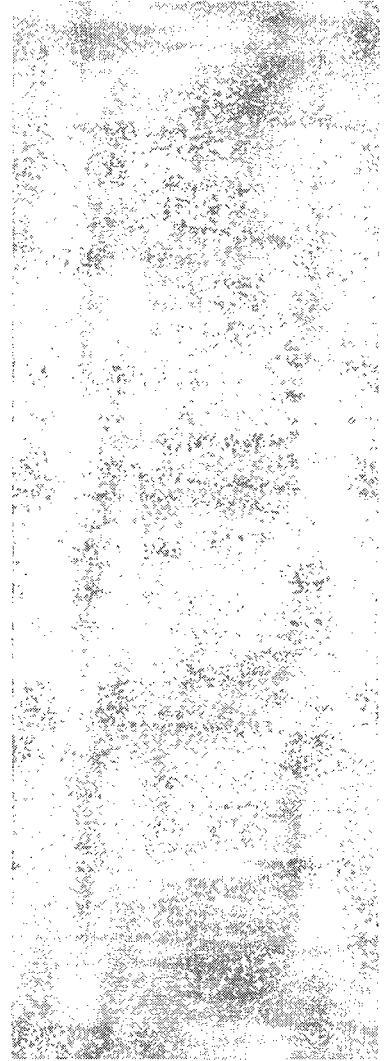
Obama Declares Emergency in North Dakota

President Obama declared an emergency this week for parts of North Dakota affected by severe flooding, making federal emergency aid available to the state.

» READ | By CQ Staff

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Issue-Id: 17537833; cqhlis:100

Riley (OCA), Timothy

From: CQ Budget Tracker [budgettracker-owner@cqrollcall.com]
Sent: Wednesday, April 13, 2011 7:02 AM
To: Riley (OCA), Timothy
Subject: CQ Budget Tracker Newsletter



Chuck Conlon, Editor, budget@cq.com

MORNING BRIEFING Wednesday

[What's New](#)
[Print Issue](#)

Obama Set to Lay Out Debt Reduction 'Vision'

President Obama on Wednesday officially joins the debate on the issue of long-term deficit reduction when he gives a speech laying out his "vision" of how the issue should be addressed.

The president's speech will intensify the national debate over growing debt and deficits, and the difficult choices involved with returning government finances to a sustainable long-term path. Although the president has periodically focused on the nation's long-term fiscal issues — including a fiscal summit soon after taking office, and creation of the fiscal commission to make policy recommendations — other high-priority issues have usually dominated his time and effort. "This is the beginning of a process by which he intends to engage this conversation. It's an important issue and it goes beyond giving one speech," said White House press secretary Jay Carney. "We're talking about major issues that have gone unfronted and unsolved for a long time for a reason. And therefore it requires his engagement and the engagement of other serious leaders here in Washington to address the obstacles, address the challenges, and come to some common ground on how to deliver a product to the American people that achieves the goal of reducing our deficit."

[White House Press Briefing Transcript](#)

Obama plans to meet with congressional leaders before the speech, but Republicans yesterday pre-emptively warned him not to call for any tax increases. "I'm pleased the president has finally joined the discussion, but the Ryan budget has set the bar," said Speaker John A. Boehner, R-Ohio, regarding the House GOP budget prepared by Budget Chairman Paul D. Ryan, R-Wis. "If the president is willing to offer serious proposals that grow our economy, preserve and protect programs such as Medicare and Medicaid, and set us on a path to pay down the national debt, we're open to hearing them," Boehner said. "However, if the president begins the discussion by saying we must increase taxes on the American people — as his budget does — my response will be clear: tax increases are unacceptable and are a nonstarter." Administration officials have been critical of the House GOP budget and its proposals to cut spending by turning Medicaid into a block

Latest News on Hot Bills

Updated 5:30 a.m., Wednesday 4/13

Fiscal 2011 Spending Deal



The House on Wednesday considers a floor rule for the bill,

with a vote on passage set for Thursday. Wednesday's vote should give leaders an indication of the level of support for the agreement. The bill cuts almost \$40 billion from 2010 levels. [CQ](#)

[Today Story](#) | [Complete Bill Coverage](#)
2012 Budget Resolution



House Rules on Wednesday decides what substitute

amendments will be permitted. Floor debate is set to begin Thursday. The GOP plan cuts spending by \$6.2 trillion over 10 years compared with Obama's budget and significantly modifies Medicaid and Medicare. [Complete Bill Coverage](#)

grant to states and ending the open entitlement for Medicare, while also reducing tax rates for the wealthy. They say Obama will emphasize that deficit reduction must take "a balanced approach" under which there is a shared sacrifice.

Statements & Releases: [Boehner](#) | [Cantor](#) | [McConnell](#) | [Hatch](#)

Carney again denied there was any link between Obama's speech and the coming battle over increasing the debt limit — where separately, senior Senate Democrats are now trying to get a jump on the issue.

With Republicans demanding that an increase in the debt limit must be accompanied by major reductions in spending or constraints on future spending, Democrats want to avoid the brinkmanship that occurred during negotiations over fiscal 2011 spending. Senate Finance Chairman Max Baucus, D-Mont., and Majority Whip Richard J. Durbin, D-Ill., yesterday stressed that a similar protracted battle over the government's borrowing authority poses substantial risks and could throw international financial markets into chaos. Democrats don't yet have a specific plan of action, but they would like to start debate on the issue early. The Senate Finance Committee today will hold a hearing on options for deficit reduction, and panel members are expected to soon meet with Treasury Secretary Timothy F. Geithner to talk about the details of a debt limit increase. "It will happen, because everyone recognizes the consequences of not doing it," Carney said at the White House of increasing the debt limit. "What is not acceptable, what will not make sense is linking somehow or holding hostage a vote on the debt ceiling by trying to link it" to GOP demands for spending cuts or changes to entitlements.

[CQ Today Story](#)

A favored GOP proposal to limit spending, which has some Democratic support, is to cap total federal spending as a percentage of gross domestic product. Jeff Sessions of Alabama, the ranking Republican on Senate Budget, yesterday noted the balanced budget amendment to the Constitution that has been backed by all 47 Senate Republicans, and which would cap spending at 18 percent of GDP. In the House, a GOP balanced budget amendment there ([H J Res 1](#)) would set the cap at 20 percent of GDP. Sen. Bob Corker, R-Tenn., and Missouri Democrat Claire McCaskill, meanwhile, have a statutory proposal ([S 245](#)) that would cap spending at 20.6 percent of GDP by 2022. "We've got momentum," Corker said of their proposal. Meanwhile, Rep. Heath Shuler, D-N.C., and other member of the Blue Dog Coalition have backed the recommendations of Obama's fiscal commission, which calls for reducing spending to 22 percent of GDP initially, declining eventually to 21 percent of GDP. It is currently at 24 percent of GDP. "At the

end of the day, you need something in the middle," Shuler said.

[Feb. 1 Corker Release](#) | [Senate GOP Balanced Budget Amendment](#) | [Fiscal Commission Report](#) | [Blue Dog Blueprint](#)

Meanwhile, former Government Accountability Office head David M. Walker is shopping a new proposal to cap the nation's publicly traded government debt as a stopgap plan, garnering mixed reviews on the Hill. "It's a very constructive idea. With that said, I mean obviously, that's a backup plan," said Budget Chairman Kent Conrad, D-N.D., who as one of the Gang of Six senators is trying to broker a deficit reduction deal. Walker said his proposal would allow more time to cut that deal while clearing the way for legislation to raise the nation's current \$14.3 trillion debt limit, which covers both publicly traded debt and the debt held in government trust funds. He said several lawmakers were considering legislation based on his proposal. "This is Plan B. It's a good insurance policy. It has enforcement and has credibility with markets," said Walker, who now serves as CEO of the Comeback America Initiative, an advocacy group backed by investor Peter G. Peterson. Walker's proposal would, starting in 2013, put an annual cap on publicly traded debt, which currently amounts to about \$10 trillion, or 65 percent of the nation's \$15 trillion economic output, and is rapidly rising. The goal would be a limit of 70 percent of GDP by 2020. Walker predicted his proposal would attract bipartisan support because it would "not predetermine whether there would be spending cuts or tax increases."

[Walker Statement on Budget](#)

SPENDING DEAL MOVES TOWARD THURSDAY VOTE: The House on Wednesday votes on the floor rule for the fiscal 2011 spending agreement, which will give House leaders an initial indication of support for the bill.

GOP leaders are expressing confidence that the bill ([HR 1473](#)) will pass this week, but they are hoping to minimize the number of Republican defections on the measure. A strong GOP showing of support, they believe, will enable Speaker Boehner to claim victory in the battle over spending and strengthen their hand against Democrats heading into upcoming battles over the fiscal 2012 budget resolution and raising the debt limit. Still, it would appear unlikely that Republicans will be able to pass the bill on their own and that they will need the votes of Democrats to reach a majority. Several prominent GOP conservatives have already announced their opposition to the agreement made between Boehner and Democrats, and other Republicans will likely oppose it because they feel it doesn't cut spending enough or doesn't include policy riders that they had supported. Similarly, many Democrats will

oppose it because they feel it cuts spending too deeply. GOP leaders had wanted to vote for passage of the bill today, but they postponed that vote until Thursday to give House members more time to review it; the bill was not finalized and made publicly available until early Tuesday morning. In the Senate, Democratic and Republican leaders yesterday appeared confident that their chamber would easily approve the bill and are pressing for final votes on the measure Thursday, immediately after the House. Current government funding expires Friday night.

CQ Today Stories: [Overview](#) | [Outlook](#) | [Riders](#)

Statements & Releases: [Speaker's Office](#) | [Reid](#) | [White House Policy Statement](#)

The bill provides for \$1.055 trillion in discretionary spending for the year, a reduction of \$39.9 billion from 2010 enacted levels and \$37.7 billion from the stopgap levels enacted by Democrats last year.

Republicans had wanted cuts of \$61.5 billion from that Democratic CR level, as included in [HR 1](#). Of the \$40 billion in cuts from 2010, some \$18 billion come from reductions to mandatory programs (what are called "changes in mandatory programs" or "CHIMPS" on the Hill) — and the fact that when mandatory programs are cut within the context of an appropriations bill they are essentially scored as a cut in discretionary spending. Appropriators in the past have sometimes used this scoring anomaly to pack in additional discretionary spending; cutting or limiting mandatory spending to produce scored savings that open up "headroom" under a bill's discretionary spending cap, and then adding in more discretionary spending to fill that room. In this case, however, the cuts to mandatory programs have been used to lower the bill's scored discretionary spending, thereby precluding the need to cut other discretionary programs to produce the same savings — and keeping the baseline for discretionary spending higher than it would otherwise be.

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CBO Summaries: [Final Agreement](#) | [2011 CRs Enacted](#)

Senate Democrats on Tuesday issued a summary of the CHIMPS in the final agreement, which they say "staved off severe cuts to key domestic programs like education, clean energy and medical

research.” Cuts to mandatory spending were made in eight of the 12 spending bills, ranging from \$6.8 billion in the Labor-HHS-Education bill to \$23 million in the Homeland Security spending bill.

Senate Democratic Leadership Summary (showing mandatory cuts)

SENATE APPROPRIATORS WEIGH USAID FUNDING REQUEST: U.S.

Agency for International Development (USAID) Administrator Rajiv Shah pressed Senate appropriators Tuesday to meet the agency’s fiscal 2012 budget request as it faced potentially steep cuts for the rest of the current year.

State-Foreign Operations Subcommittee Chairman Patrick J. Leahy, D-Vt., emphasized his belief in the importance of foreign aid programs, but he expressed doubt that the request would be fully funded. USAID works with the State Department to administer approximately \$24 billion in assistance, and the agency requested \$1.5 billion for its operating expenses for fiscal 2012, an increase of 8 percent over fiscal 2010 levels. The fiscal 2011 spending agreement ([HR 1473](#)) set to be considered by both chambers later this week, on the other hand, would cut funding for USAID operating expenses by \$39 million below fiscal 2010 levels. “It’s not a question of whether your mission is integral to our national security,” Leahy told Shah during a hearing on USAID’s fiscal 2012 request. “I want to know how you’re making the changes to ensure that USAID carries out that mission in the most cost-effective way. . . . we’re working extraordinarily hard to stay within our budget constraints and also make sure we spend the money wisely.” He praised Shah for making “steady, significant progress” at the agency over his 15 months as administrator, but pressed him to identify some possible cutbacks.

Leahy Opening Statement

Shah insisted that the Obama administration’s fiscal 2012 request takes into account the nation’s difficult fiscal situation. “We’ve proposed a set of reallocations and we’ve used our new budget capability to identify tough trade-offs that we’ve made in order to move money into better-performing efforts,” he said. Shah emphasized signature “results-oriented” programs like the Malaria Initiative and Feed the Future Initiative and expressed his commitment to “allocating resources where you get the best results.” He highlighted the administration’s proposal to shut down a series of missions around the world in order to lower costs and reduce funding for smaller programs, “in order to be more focused and selective in how we apply our investment and our resources.”

Shah Prepared Testimony

Like their House counterparts, Senate appropriators from both parties

praised Shah for increasing accountability and oversight at the agency, but continued to express concern about work in foreign regions known for corruption. Leahy questioned Shah about how USAID worked in countries where the governments are not reliable partners, such as Afghanistan and Haiti. The chairman expressed concern that "the ingredients for sustainable development really don't exist" in Afghanistan, saying his "frustration level is very, very high" with the war and development efforts there. Shah said that while the agency realizes the difficulty of the environment, USAID is optimistic that it will have strong programs in areas "that meet the president's guidance of sustainability and durability and benefit."

March 31 Budget Tracker Newsletter: House Appropriators Spar Over USAID Funding

Shah faced a series of tough questions from Freshman Mark Steven Kirk, R-Ill., regarding the status of a vetting system aimed at assuring that USAID does not inadvertently assist terrorists in West Bank and Gaza. Kirk outlined the timeline of the system's development and detailed what he sees as a failure to meet expected launch dates. "You have a \$495 million funding budget request and you are unable to say whether you will put in place a previously designed and paid-for system," he said in an incredulous tone. While Shah did not set a new estimate for when the vetting system will be implemented, he sought to assure the panel that he wants to implement the pilot program "as quickly as possible."

Another GOP freshman, Ron Johnson of Wisconsin, followed Kirk's questions by asking Shah to estimate how much USAID funding potentially goes to foreign terrorists. "We don't have an aggregate number," Shah said, "because if we knew a certain amount of money was going for an inappropriate, illegal purpose we would immediately cancel that program. . . . I've said I want to see these examples, because the more of these we can ferret out is part of our measure of success in improving our accountability."

Alan K. Ota and Frances Symes contributed to this report.

In Brief

• EPA Riders May Sit Out Debt-Ceiling Fight as GOP Leaders Reset

Priorities: Just days after House Republicans dropped several EPA riders during spending-bill negotiations, top GOP senators signaled that policy fights would take a back seat to deficit reduction in coming talks over raising the federal debt limit. [Full Story](#)

• Rail Safety Program Switched Off in Final Package: Freight railroads scored a quiet victory in the negotiations that produced the fiscal 2011 spending package. The measure headed to the House floor Thursday would cut off funding for a rail

safety program created in response to a fatal California train collision in 2008. [Full](#)

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New bill information since Sunday, Apr. 10

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Issue Id: 17537833 budgettracker: 87

From: Hayden, Elizabeth
To: WebContractor Resource; WebWork Resource; Hardy, Sally
Subject: Press Release on Japan Page
Date: Thursday, March 24, 2011 11:42:00 AM
Importance: High

Please add press release 11-055 to Japan page.

*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*

Am/38

From: Dricks, Victor
To: Akstulewicz, Brenda
Cc: Hayden, Elizabeth
Subject: RE: Please send me the dates you worked overtime for the Japan events. (I sure hope this T&L stuff is earning us celestial points!)
Date: Thursday, March 24, 2011 12:36:12 PM

March 20: 3 hours
March 21: 1 hour
March 23: 1 hour

From: Akstulewicz, Brenda
Sent: Thursday, March 24, 2011 11:24 AM
To: Brenner, Eliot; Burnell, Scott; Chandrathil, Prema; Couret, Ivonne; Dricks, Victor; Hannah, Roger; Harrington, Holly; Hayden, Elizabeth; Janbergs, Holly; Ledford, Joey; McIntyre, David; Mitlyng, Viktoria; Screnci, Diane; Shannon, Valerie; Sheehan, Neil; Uselding, Lara
Subject: Please send me the dates you worked overtime for the Japan events. (I sure hope this T&L stuff is earning us celestial points!)

Brenda Akstulewicz
Administrative Assistant
Office of Public Affairs
301-415-8209
brenda.akstulewicz@nrc.gov



Am/39

From: Google Alerts
To: Hayden, Elizabeth
Subject: Google Alert - Nuclear Regulatory Commission
Date: Thursday, March 24, 2011 1:33:43 PM

News

7 new results for **Nuclear Regulatory Commission**

NRC Inspector: US Nuclear Plants Not Reporting Equipment Deficits

Wall Street Journal

Some 28% of nuclear plant operators aren't reporting the defects to basic components unless there's an equipment breakdown. "Licensees representing at least 28 percent of the operating reactor fleet do not, as standard practice, notify **NRC** of defects ...

[See all stories on this topic »](#)

Investigator: Defects at **nuclear** plants unreported

San Francisco Chronicle

The inquiry by the inspector general of the **Nuclear Regulatory Commission** also raised questions about the agency's oversight, saying reporting guidelines for the nuclear industry are "contradictory and unclear." The study comes as questions are raised ...

[See all stories on this topic »](#)

NRC seeks comment on new GE-Hitachi nuclear design

Reuters

NEW YORK (Reuters) - The US **Nuclear Regulatory Commission (NRC)** said on Thursday it was seeking public comment on the proposed certification of General Electric-Hitachi Nuclear Energy's Economic Simplified Boiling-Water Reactor (ESBWR) design for use ...

[See all stories on this topic »](#)

Rep. Capps calls on **NRC** to suspend license renewal of Diablo Canyon

KSBY San Luis Obispo News

Local Congresswoman Lois Capps (D) is calling on the **Nuclear Regulatory Commission** to suspend the license renewal process at Diablo Canyon Nuclear Power Plant in San Luis Obispo County. In a letter sent to the **NRC** Thursday, Capps says she wants the ...

[See all stories on this topic »](#)

Dot Earth: **Nuclear** Lessons for America from Fukushima, France and China

New York Times (blog)

By ANDREW C. REVKIN I urge you to read the excerpts below, click to read the rest and return here to discuss the lessons he points to from France's program, China's push into new reactor designs and his argument that the **Nuclear Regulatory Commission** ...

[See all stories on this topic »](#)

Letters: Shouldn't biomass play a part?

Bennington Banner

The **Nuclear Regulatory Commission** just issued a 20-year extension for the almost 40-year-old Vermont Yankee nuclear plant. With the events unfolding in Japan involving similar age and technology plants, countries all over the world are reevaluating ...

[See all stories on this topic »](#)

Sea Level Rise Brings Added Risks to Coastal **Nuclear** Plants

Climate Central (blog)

"After the events in Japan, we took a hard look at whether our operating facilities are protected, based on current regulations and operating procedures," says Roger Hannah, a senior public relations official with the US **Nuclear Regulatory Commission** ...

Am/210

[See all stories on this topic »](#)

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From: Hayden, Elizabeth
To: Screnci, Diane; Akstulewicz, Brenda
Subject: RE: overtime
Date: Thursday, March 24, 2011 1:52:00 PM

Are these the only days (even from the previous pay period) for OT.

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: Screnci, Diane
Sent: Thursday, March 24, 2011 12:02 PM
To: Hayden, Elizabeth; Akstulewicz, Brenda
Subject: overtime

Overtime request:

I will be requesting overtime payment for the following days:

3/14 3 hours
3/15 2.5
3/16 2
3/17 3
3/18 4
3/19 12.5
3/21 1.5
3/22 .5
3/23 1

Also on 3/24 and 3/25 – haven't worked those days yet.

DIANE SCRENCI
SR. PUBLIC AFFAIRS OFFICER
USNRC, RI
610/337-5330

AM/41

From: [Hayden, Elizabeth](#)
To: [Weber, Michael](#)
Cc: [Brenner, Eliot](#)
Subject: EPA/NRC Press Release
Date: Thursday, March 24, 2011 1:57:00 PM

Heard about a possible press release with EPA on radiation readings showing up at plants around the U.S. Our message should be something along the lines of we are aware that minute amounts of element=-XYZ have been detected at the very sensitive monitoring equipment at a number of operating nuclear plants. Nothing detected so far comes anywhere near a level that might concern us. We remain convinced there will be no health impact on the United States.

Please keep us in the loop. Thanks.

Beth

Am/42

From: Hayden, Elizabeth
To: Akstulewicz, Brenda
Subject: OT Dates
Date: Thursday, March 24, 2011 2:02:00 PM

I will attempt to put in for Comp Time only.

*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*

am/43

From: [Marvin Fertel](#)
To: [Hayden, Elizabeth](#)
Subject: Nuclear Energy Industry's 2011 Annual Conference
Date: Thursday, March 24, 2011 2:28:49 PM



Dear Colleague:

In just a few short weeks, the [Nuclear Energy Institute](#) will hold its annual conference, the [Nuclear Energy Assembly](#), in Washington, D.C. I'm enclosing an [advance program](#) for the conference.

This year's Nuclear Energy Assembly will be the first major international nuclear energy industry conference since the tragic events in Japan at the Fukushima nuclear power plant.

Like you, despite recent events in Japan, I am as committed to nuclear energy as ever. I am convinced as ever that adequate electricity supply is an absolute imperative – to drive the world's great economies and lift out of poverty the billions of people who have no access to commercial sources of energy. I know that nuclear energy must be, and will be, a growing part of our energy portfolio for decades to come.

In a very real sense, this year's Nuclear Energy Assembly will serve as a platform from which we launch our future.

Please [join us](#), as an industry with key policy and decision makers, in this important conversation about the future of nuclear energy. I look forward to seeing you in Washington in May.

Sincerely,



Marvin S. Fertel



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Am/44

From: Harrington, Holly
To: Bonaccorso, Amy; Deavers, Ron; Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth; McIntyre, David; Chandrathil, Prema; Dricks, Victor; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Screnci, Diane; Sheehan, Neil; Uselding, Lara
Subject: In case anyone cares
Date: Thursday, March 24, 2011 2:51:13 PM

Here is a link to an FDA alert re. food imports:
http://www.accessdata.fda.gov/cms_ia/importalert_621.html

FDA is working on some advice for our Customs officers re. packages arriving from Japan.

AM/45

From: Harrington, Holly
To: Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth; McIntyre, David; Chandrathil, Prema; Dricks, Victor; Hannah, Roger; Ledford, Joey; Mittyng, Viktoria; Screnci, Diane; Sheehan, Neil; Uselding, Lara
Cc: Bonaccorso, Amy; Deavers, Ron
Subject: DOE measurements from Japan, if anyone gets asked
Date: Thursday, March 24, 2011 2:56:22 PM

DOE has made public the AMS radiological measurement data from the overflights in Japan. The web link is at <http://energy.gov/news/10194.htm> .

Am/46

From: Hayden, Elizabeth
To: Burnell, Scott
Cc: Akstulewicz, Brenda
Subject: RE: Expected overtime
Date: Thursday, March 24, 2011 3:17:00 PM

OK

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: Burnell, Scott
Sent: Thursday, March 24, 2011 1:43 PM
To: Hayden, Elizabeth
Subject: RE: Expected overtime

3/11 and 3/12 are put down as credit hours.

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 1:40 PM
To: Burnell, Scott
Subject: RE: Expected overtime

Did you have any overtime before 3/13? If so, include those dates, also.

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: Burnell, Scott
Sent: Thursday, March 24, 2011 12:25 PM
To: Hayden, Elizabeth; Akstulewicz, Brenda
Subject: Expected overtime

Scott Burnell

Overtime days

3/13 – 3/19
3/21 – 3/25

Am/47

(as of 3/24 @ 12:30 p.m.)

From: Hayden, Elizabeth
To: Akstulewicz, Brenda
Subject: RE: Please send me the dates you worked overtime for the Japan events. (I sure hope this T&L stuff is earning us celestial points!)
Date: Thursday, March 24, 2011 3:22:00 PM

Brenda,

I'm reporting all my hours as Comp Time so I don't think you need to include me in the note to Jackie Jones, but if you want to make sure we have a complete list, here's mine:

Comp Time

3/18—13 hours
3/19 – 7.5 hours
3/21 – 1 hour
3/23—1.25 hours
3/24 – 2 hours
Total-24.75

Beth

From: Akstulewicz, Brenda
Sent: Thursday, March 24, 2011 12:24 PM
To: Brenner, Eliot; Burnell, Scott; Chandrathil, Prema; Couret, Ivonne; Dricks, Victor; Hannah, Roger; Harrington, Holly; Hayden, Elizabeth; Janbergs, Holly; Ledford, Joey; McIntyre, David; Mitlyng, Viktoria; Screnci, Diane; Shannon, Valerie; Sheehan, Neil; Uselding, Lara
Subject: Please send me the dates you worked overtime for the Japan events. (I sure hope this T&L stuff is earning us celestial points!)

Brenda Akstulewicz
Administrative Assistant
Office of Public Affairs
301-415-8209
brenda.akstulewicz@nrc.gov



Am/48

From: Hayden, Elizabeth
To: "wjkinsel@ncsu.edu"
Subject: RE: Response from "Contact Us About Live Webcasts"
Date: Thursday, March 24, 2011 3:26:00 PM

Please see <http://video.nrc.gov/>

Beth Hayden
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment

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

From: William J. Kinsella [<mailto:wjkinsel@ncsu.edu>]
Sent: Thursday, March 24, 2011 11:40 AM
To: Hayden, Elizabeth
Subject: Re: Response from "Contact Us About Live Webcasts"

Hi Beth,

Thanks for this reply. I haven't been able to find a written transcript on the NRC website--has one been posted there at this point?

Best wishes,
Bill Kinsella

On 3/21/2011 4:20 PM, Hayden, Elizabeth wrote:

> Mr. Kinsella,
> We hope to post a transcript of today's meeting to the web NLT
> Wednesday. Other than that, we don't have any other
>
> Beth Hayden
> Senior Advisor
> Office of Public Affairs
> U.S. Nuclear Regulatory Commission
> --- Protecting People and the Environment 301-415-8200
> elizabeth.hayden@nrc.gov
>
>

> -----Original Message-----

> From: William J. Kinsella [<mailto:wjkinsel@ncsu.edu>]
> Sent: Monday, March 21, 2011 11:03 AM
> To: Streaming Resource
> Subject: Response from "Contact Us About Live Webcasts"

> Below is the result of your feedback form. It was submitted by

> William J. Kinsella (wjkinsel@ncsu.edu) on Monday, March 21, 2011 at
> 11:02:47

> -----
> -----

> comments: I have just watched the March 21 NRC briefing webcast and would like to receive any records of that meeting as soon as possible. A written transcript, digital file, CD, and/or audio recording would all be helpful. I am an academic communication researcher working in the area of nuclear energy communication. I am studying the NRC's public communication in response to the events in Japan, and working to develop some conclusions from the available materials as soon as possible. Thank you for

Am/49

organizing and webcasting this meeting, and for your efforts on behalf of all US citizens as well as the people of Japan.

>

> organization: North Carolina State University

>

> address1: Department of Communication

>

> address2: Campus Box 8104

>

> city: Raleigh

>

> state: NC

>

> zip: 27607-3030

>

> country: USA

>

> phone: 919-788-9016

>

> -----

> -----

>

From: Hayden, Elizabeth
To: "wjkinsel@ncsu.edu"
Subject: RE: Response from "Contact Us About Live Webcasts"
Date: Thursday, March 24, 2011 3:27:00 PM

Sorry--this is the correct link for the transcript <http://www.nrc.gov/reading-rm/doc-collections/commission/tr/2011/20110321.pdf>

Beth Hayden
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment

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

From: William J. Kinsella [<mailto:wjkinsel@ncsu.edu>]
Sent: Thursday, March 24, 2011 11:40 AM
To: Hayden, Elizabeth
Subject: Re: Response from "Contact Us About Live Webcasts"

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> Beth Hayden
> Senior Advisor
> Office of Public Affairs
> U.S. Nuclear Regulatory Commission
> --- Protecting People and the Environment 301-415-8200
> elizabeth.hayden@nrc.gov
>
>

> -----Original Message-----

> From: William J. Kinsella [<mailto:wjkinsel@ncsu.edu>]
> Sent: Monday, March 21, 2011 11:03 AM
> To: Streaming Resource
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> -----

> comments: I have just watched the March 21 NRC briefing webcast and would like to receive any records of that meeting as soon as possible. A written transcript, digital file, CD, and/or audio recording would all be helpful. I am an academic communication researcher working in the area of nuclear energy

AM/50

communication. I am studying the NRC's public communication in response to the events in Japan, and working to develop some conclusions from the available materials as soon as possible. Thank your for organizing and webcasting this meeting, and for your efforts on behalf of all US citizens as well as the people of Japan.

>

> organization: North Carolina State University

>

> address1: Department of Communication

>

> address2: Campus Box 8104

>

> city: Raleigh

>

> state: NC

>

> zip: 27607-3030

>

> country: USA

>

> phone: 919-788-9016

>

> -----

>

> -----

>

From: Weber, Michael
To: Grobe, Jack
Cc: Brenner, Eliot; Hayden, Elizabeth; Zimmerman, Roy; Sewell, Margaret
Subject: RESPONSE - just in case if you haven't seen Fw: NYT op-ed It Could Happen Here by By FRANK N. VON HIPPEL
Date: Thursday, March 24, 2011 4:11:21 PM

Thanks, Jack

From: Grobe, Jack
Sent: Thursday, March 24, 2011 2:39 PM
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Leeds, Eric; Boger, Bruce; Holahan, Gary; Miller, Charles; fednuc@aol.com
Subject: FW: FYI, just in case if you haven't seen Fw: NYT op-ed It Could Happen Here by By FRANK N. VON HIPPEL

Got this from a friend of mine at USC. Worth reading and pondering.

From: Najmedin Meshkati [mailto:meshkati@usc.edu]
Sent: Thursday, March 24, 2011 2:33 PM
To: Grobe, Jack
Subject: FYI, just in case if you haven't seen Fw: NYT op-ed It Could Happen Here by By FRANK N. VON HIPPEL

March 23, 2011 <http://www.nytimes.com/2011/03/24/opinion/24Von-Hippel.html?src=twrhp>

It Could Happen Here

By FRANK N. VON HIPPEL

IT will be years before we know the full consequences of the disaster at the Fukushima Daiichi nuclear power plant in Japan. But the public attention raised by the problems there provides an opportunity to rethink nuclear-power policy in the United States and the rest of the world — and reduce the dangers of a similar disaster happening elsewhere.

From one perspective, nuclear power has been remarkably safe. The 1986 Chernobyl accident will ultimately kill about 10,000 people, mostly from cancer. Coal plants are much deadlier: the fine-particulate air pollution they produce kills about 10,000 people each year in the United States alone.

Of course, for most people this kind of accounting is beside the point. Their horror over even the possibility of a meltdown means that the nuclear-power industry needs constant and aggressive regulation for the public to allow it to stay in business.

Yet despite the 1979 accident at the Three Mile Island nuclear plant in Pennsylvania, the Nuclear Regulatory Commission has often been too timid in ensuring that America's 104 commercial reactors are operated safely. Nuclear power is a textbook example of the problem of "regulatory capture" — in which an industry gains control of an agency meant to regulate it. Regulatory capture can be countered only by vigorous public scrutiny and Congressional oversight, but in the 32 years since Three Mile Island, interest in nuclear regulation has declined precipitously.

Am/51

In 2002, after the commission retreated from demanding an early inspection of a reactor, Davis-Besse in Ohio, that it suspected was operating in a dangerous condition, its own inspector general concluded that it "appears to have informally established an unreasonably high burden of requiring absolute proof of a safety problem, versus lack of a reasonable assurance of maintaining public health and safety."

Even before Three Mile Island, a group of nuclear engineers had proposed that filtered vents be attached to buildings around reactors, which are intended to contain the gases released from overheated fuel. If the pressure inside these containment buildings increased dangerously — as has happened repeatedly at Fukushima — the vents would release these gases after the filters greatly reduced their radioactivity.

France and Germany installed such filters in their plants, but the Nuclear Regulatory Commission declined to require them. Given the influence of America's example, had the commission demanded the addition of filtered vents, they would likely have been required worldwide, including in Japan.

More recently, independent analysts have argued, based on risk analyses done for the commission, it is dangerous for the United States to pack five times more spent fuel into reactor cooling pools than they were designed to hold, and that 80 percent of that spent fuel is cool enough to be stored safely elsewhere. It would also be more expensive, however, and the Nuclear Regulatory Commission followed the nuclear utilities' lead and rejected the proposal. The commission has even fought relentlessly for decades against proposals — and more recently a Congressional requirement — to distribute potassium iodide pills beyond the 10-mile emergency zones around American reactors, arguing that the probability of a large release of radioactivity was too low to justify the expense. And yet the American Embassy in Tokyo is handing out potassium iodide pills to Americans 140 miles from the Fukushima plant.

The commission's defenders often argue that it must be cautious because increased costs from safety requirements could kill the nuclear power industry. But the cost of generating electricity from existing plants is actually low: the construction expenses have been paid off and running them is relatively cheap. Requiring the operators of plants to install new safety systems would not result in them being shut down.

Therefore, perhaps the most important thing to do in light of the Fukushima disaster is to change the industry-regulator relationship. It has become customary for administrations not to nominate, and the Senate not to confirm, commissioners whom the industry regards as "anti-nuclear" — which includes anyone who has expressed any criticism whatsoever of industry practices. The commission has an excellent staff; what it needs is more aggressive political leadership....

Frank N. von Hippel, a nuclear physicist, is a professor of public and international affairs at Princeton and co-chairman of the International Panel on Fissile Materials. From 1993 to 1994 he was responsible for national security issues in the White House Office of Science and Technology Policy.

From: Hayden, Elizabeth
To: Anderson, Brian
Subject: RE: GI-199 -- Work status update
Date: Thursday, March 24, 2011 4:50:00 PM

Thanks so much. You're doing a great job.

Beth

From: Anderson, Brian
Sent: Thursday, March 24, 2011 4:10 PM
To: Hayden, Elizabeth
Cc: Burnell, Scott; Harrington, Holly
Subject: GI-199 -- Work status update

Beth – I now have the information I need to finish GI-199. I'm working Part 21 in parallel.

I'll deliver GI-199 ASAP.

Brian

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 1:41 PM
To: Burnell, Scott; Anderson, Brian; Harrington, Holly
Subject: RE: Work status update

That's fine. Hopefully someone will respond to your next steps question shortly on GI-199.

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: Burnell, Scott
Sent: Thursday, March 24, 2011 12:40 PM
To: Anderson, Brian; Hayden, Elizabeth; Harrington, Holly
Subject: RE: Work status update

That works for me.

From: Anderson, Brian
Sent: Thursday, March 24, 2011 12:40 PM
To: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott
Subject: Work status update

Just wanted you to know that I'm working on Q&As for Part 21, GI-199, and Price-

Am/52

Anderson...in that order. I'm trying to work things in parallel. If I should be doing anything differently, please let me know.

Thanks,
Brian

From: Hayden, Elizabeth
To: Beaulieu, David
Subject: RE: Very Draft RIS
Date: Thursday, March 24, 2011 5:06:00 PM

Do all plants have ongoing environmental monitoring programs?

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: Beaulieu, David
Sent: Thursday, March 24, 2011 5:04 PM
To: Hayden, Elizabeth
Subject: RE: Very Draft RIS

Probably Monday. See latest version attached.

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 4:45 PM
To: Beaulieu, David
Subject: RE: Very Draft RIS

Thanks. I'll put together what I can. When does NRR plan to issue the RIS?

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: Beaulieu, David
Sent: Thursday, March 24, 2011 3:16 PM
To: Hayden, Elizabeth
Subject: Very Draft RIS

Although this is a very rough draft, it's probably good enough to start preparing a press release.

<p>DAVID BEAULIEU PROJECT MANAGER, NRR/DPR/PGCB (bowl-yer) 301-415-3243 O12H17 David.Beaulieu@nrc.gov</p>
--

Am/53



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

**NRC REGULATORY ISSUE SUMMARY 2011-XX: REQUEST FOR
LICENSEE RADIOACTIVITY MEASUREMENTS ATTRIBUTED TO
JAPANESE NUCLEAR POWER PLANTS FOLLOWING EARTHQUAKE**

ADDRESSEES

All holders of an operating license for a nuclear power reactor issued under 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.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to request that addressees with on-going environmental monitoring programs voluntarily report to the NRC anomalous environmental radioactivity measurements likely caused by radioactive material released by the Fukushima Daiichi Nuclear Power Station in Japan following the March 11, 2011, Tohoku-Taiheiyō-Oki earthquake. 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.

SUMMARY OF ISSUE

It appears likely that radioactive material released from the Fukushima Daiichi Nuclear Power Station has arrived within the continental US in concentrations that may be detectable by licensee environmental monitoring equipment. Higher than normal levels of radioactivity such as iodine-131 and cesium-137 have been detected in air and rainwater at several U.S. reactor sites. The NRC will compile the information voluntarily reported to the NRC and share it with other Federal agencies as appropriate for an integrated assessment across the US.

Because of the sensitivity and the broad scope of existing licensee Radiological Environmental Monitoring Programs (REMP), augmentation of the NRC licensee REMF is not necessary.

Any anomalous detection of radioactive material should be evaluated in accordance with facility license, technical specifications and applicable regulations to assure that the detected materials are properly identified as to source (e.g., either plant operations or the Fukushima Daiichi Nuclear Power Station).

VOLUNTARY RESPONSE

MLXXXXXXXXX

Addressees are requested to voluntarily report to the NRC by sending an e-mail to the NRC Operations Center at hoo.hoc@nrc.gov any anomalous environmental radiation or radioactivity measurement that can be reasonably assumed to be radioactive material that originated from the Fukushima Daiichi Nuclear Power Station. The requested reporting format is as follows:

1. Sample date, time, and approximate sample locations(s)
2. Environmental sample medium (e.g., air particulate, air charcoal, milk)
3. Type of analysis (e.g., gross beta, iodine-131, other gamma emitter) and analysis results
4. Detection sensitivity (e.g., LLD or MDA)

BACKFIT DISCUSSION

This RIS requires no action or written response. Any action on the part of addressees to voluntarily report information in accordance with the guidance contained in this RIS is strictly voluntary and, therefore, is not a backfit under 10 CFR 50.109. Consequently, the staff did not perform a backfit analysis.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because it pertains to an administrative aspect of the regulatory process that involves the voluntary submission of information on the part of addressees.

CONGRESSIONAL REVIEW ACT

This RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. §§ 801-808) and, therefore, is not subject to the Act.

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control numbers 3150-0011 and 3150-0012.

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 current valid Office of Management and Budget control number.

CONTACT

Please direct any questions about this matter to the technical contact(s) or the Lead Project Manager listed below, or to the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

Thomas Blount, Acting Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contact: {name}, NRR
301-415-xxxx
e-mail: xxx@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.

CONTACT

Please direct any questions about this matter to the technical contact(s) or the Lead Project Manager listed below, or to the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

Thomas Blount, Acting Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Technical Contact: {name}, NRR
301-415-xxxx
e-mail: xxx@nrc.gov

Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

ADAMS Accession No.: MLXXXXXXXXXX

TAC MXXXXXX

OFFICE		Tech Editor	BC:	D:DIRS	LA:PGCB:NRR
NAME					CHawes
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OFFICE	PM:PGCB:NRR	BC:PGCB:NRR	D:DFCSS:NMSS	D:DCIP:NRO	D:DPR:NRR
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OFFICE					

OFFICIAL RECORD COPY

From: Hayden, Elizabeth
To: Beaulieu, David; Conatser, Richard
Cc: Shoop, Undine; Pedersen, Roger; Alexion, Thomas
Subject: RE: RIS Unclear
Date: Thursday, March 24, 2011 6:02:00 PM

What is meant by "on-going"?

Beth

From: Beaulieu, David
Sent: Thursday, March 24, 2011 5:23 PM
To: Conatser, Richard
Cc: Shoop, Undine; Pedersen, Roger; Alexion, Thomas; Hayden, Elizabeth
Subject: RIS Unclear

The RIS now reads:

ADDRESSEES

All holders of an operating license for a nuclear power reactor issued under 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.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to request that addressees **with on-going environmental monitoring programs** voluntarily report to the NRC anomalous environmental radioactivity measurements likely caused by radioactive material released by the Fukushima Daiichi Nuclear Power Station in Japan following the March 11, 2011, Tohoku-Taiheiyoku-Oki earthquake.

Comment:

I recommend deleting "**with on-going environmental monitoring programs**" because it creates confusion whether all addressee have an on-going environmental monitoring program.

DAVID BEAULIEU PROJECT MANAGER, NRR/DPR/PGCB (bowl-yer) 301-415-3243 O12H17 David.Beaulieu@nrc.gov
--

U.S. Nuclear Regulatory Commission

Am/54

From: [Hayden, Elizabeth](#)
To: [Akstulewicz, Brenda](#)
Subject: RE: Overtime for OPA
Date: Thursday, March 24, 2011 6:04:00 PM

Great job!

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: Akstulewicz, Brenda
Sent: Thursday, March 24, 2011 5:15 PM
To: Jones, Jackie
Cc: Brenner, Eliot; Hayden, Elizabeth; Shannon, Valerie
Subject: Overtime for OPA

Hello Jackie,

Attached you will find the names and dates of OPA staff that have worked or will be working overtime related to the events in Japan. It is my understanding that you only need the dates, not the number of hours overtime were worked or will be worked. If this has changed I can get the hours to you.

If you have any questions or require additional information, please contact Beth Hayden at 415-8202 (elizabeth.hayden@nrc.gov) or Val Shannon 415-8208 (valerie.shannon@nrc.gov) as I will be out of the office Friday, March 25.

Thank you,
Brenda

Brenda Akstulewicz
Administrative Assistant
Office of Public Affairs
301-415-8209
brenda.akstulewicz@nrc.gov



Am/55

DATES WORKED OVERTIME
BY STAFF OF THE OFFICE OF PUBLIC AFFAIRS

HEADQUARTERS	
Brenda Akstulewicz 3/14 → 3/18 3/20 → 3/24	Scott Burnell 3/13 → 3/19 3/21 → 3/25
Ivonne Couret 3/11 → 3/12 3/13 → 3/19 3/21 → 3/23	Beth Hayden (comp time only) 3/18 → 3/19 3/21 → 3/24
Holly Harrington [some comp time] 3/11 → 3/12 3/13 → 3/18 3/20	Holly Janbergs 3/13 → 3/18 3/20
Dave McIntyre [probably comp time] 3/12 → 3/18 3/21 → 3/25	Valerie Shannon 3/13 → 3/18 3/20 → 3/23

REGION I	
Neil Sheehan 3/13 → 3/18	Diane Screnci 3/14 → 3/22
REGION II	
Roger Hannah 3/20 → 3/23	Joey Ledford N/A
REGION III	
Vika Mitlyng N/A	Prema Chandrathil (Yeaman) [comp time only] 3-12 → 3/23
REGION IV	
Laura Uselding 3/11 → 3/12 3/13 → 3/18	Victor Dricks 3/20 → 3/23

From: Hayden, Elizabeth
To: Brenner, Eliot
Subject: RE: Annual Assessment Meetings
Date: Thursday, March 24, 2011 6:09:00 PM

agree

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: Brenner, Eliot
Sent: Thursday, March 24, 2011 4:52 PM
To: Hayden, Elizabeth
Subject: RE: Annual Assessment Meetings

I did sort of toss it back to them to ask the EDO to explain the rationale. Methinks they are overthinking this one. we should be back on track within a week or so.

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 4:49 PM
To: Brenner, Eliot
Subject: RE: Annual Assessment Meetings

Why not ask the EDO or RA's for their rationale for postponing meetings?

Beth

From: Brenner, Eliot
Sent: Thursday, March 24, 2011 3:09 PM
To: Loyd, Susan; Hayden, Elizabeth; Burnell, Scott
Cc: Schmidt, Rebecca; Powell, Amy; Coggins, Angela; Hipschman, Thomas; Batkin, Joshua; Landau, Mindy; Ellmers, Glenn
Subject: RE: Annual Assessment Meetings

Well, it's one of those wonderful damned if you do, damned if you don't situations to which there is no right answer.

Yes, each region is making its own decisions, and I think only a handful have been slipped, probably only in Region I. TMI is the one that comes to mind, and that was supposed to be this week if I recall. (BTW, the anniversaries of both TMI and Chernobyl are days away.)

Am/56

If the chairman's office wants complete uniformity across the system, it needs to let that be known. If not, the regions will go their merry way.

I can assure you that OPA is feeding every bit of supportive material to the regional PAOs so that staff is well prepared for any end-of-cycle meeting.

The die has already been cast, at least for a handful of meetings. I believe if we are asked they can be attributed to there being no time to focus on the meeting and intense competing demands for staff during the early days/weeks of the Japan issue.

Eliot

From: Loyd, Susan
Sent: Thursday, March 24, 2011 2:52 PM
To: Brenner, Eliot; Hayden, Elizabeth; Burnell, Scott
Cc: Schmidt, Rebecca; Powell, Amy; Coggins, Angela; Hipschman, Thomas; Batkin, Joshua; Landau, Mindy; Ellmers, Glenn
Subject: Annual Assessment Meetings

Hi:

Tom, Angela and I were just discussing the upcoming annual assessment meetings. We see that some of the meetings are being postponed, but this appears to be a decision that is being made region-by-region. The postponements are related to additional inspections undertaken in response to Japan disaster.

As we have discussed, these meetings will likely draw much more attention than usual, due to the Japan situation and resulting heightened interest in everything nuclear.

We are concerned about the messaging. People could logically ask why "their" meeting is postponed – does this mean it's unsafe? Is there something they are not being told? Or, if "their" meeting is not postponed, does this mean their plant is not getting the extra inspections that others are? Since there does not seem to be a pattern, it becomes much more difficult to explain.

The Chairman is testifying on the Hill next week in front of several committees. If members of Congress see that a plant/plants in their state or district either are having or not having their meeting, and question the rationale, this could be difficult for the Chairman to address.

Any thoughts?
Susan

Susan K. Loyd
Communications Director
Office of the Chairman
U.S. Nuclear Regulatory Commission
Tele: 301-415-1838
Susan.Loyd@nrc.gov

From: Hayden, Elizabeth
To: Janbergs, Holly
Cc: Shannon, Valerie
Subject: RE: FOIA Informational Meeting
Date: Thursday, March 24, 2011 6:11:00 PM

Many thanks, Bethany.

Val—I suggest we send out the e-mail to OPA staff tomorrow after I look at it one more time.

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: Janbergs, Holly
Sent: Thursday, March 24, 2011 4:23 PM
To: Shannon, Valerie
Cc: Hayden, Elizabeth
Subject: FOIA Informational Meeting

Hello,

Largely the meeting consisted of OIS looking to hear concerns and possible ways in which they could help various offices with the workload/searches they will need to do. Even though some of these requests have been granted expedited processing, the agency is not likely to get them done within 20 days. However, folks seemed confident that as long as we can show we are making an effort in good faith to complete the requests, it will not be a problem.

Normal procedures would involve having individuals do their own searches and then provide the information/files/correspondence to their FOIA coordinators. OIS is looking into the possibility of an animated search, but they don't know if it will adequately address everything that the request requires we cover. They have a few other ideas they are working on as well (including setting up one big folder for us to dump files into) but they are not optimistic about those.

Essentially, the offices at the meeting asked that the FOIAs be looked at in terms of what the agency is being asked; they asked to be given a realistic timeframe, and told whether OIS can be of help. OIS will be capturing their comments in writing and sending them around in e-mail. They will also be looking into the suggestions offices have made in order to see if any will be useful.

Most relevant to us is that:

- 1) If we have correspondence/information in locally-archived folders, an OIS search may not be able to draw from those folders.

Am/57

- 2) If/when we have time, we need to begin the process of responding to the expedited FOIAs, with or without OIS' help.

If offices have any further suggestions or concerns, send them along to OIS.

-B.

Beth Janbergs
Public Affairs Assistant
301-415-8211

From: [Harrington, Holly](#)
To: [Hayden, Elizabeth](#)
Subject: RE: Price-Anderson QA ready for use
Date: Thursday, March 24, 2011 6:17:13 PM

I don't remember where the request came from, but at least we have something should we need it down the road

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 6:05 PM
To: Harrington, Holly; Burnell, Scott
Subject: RE: Price-Anderson QA ready for use

Agree. I'm not sure why these questions came up anyway.

Beth

From: Harrington, Holly
Sent: Thursday, March 24, 2011 5:00 PM
To: Burnell, Scott; Hayden, Elizabeth
Subject: RE: Price-Anderson QA ready for use

I think we should discuss first before opening this can of worms. I'm not seeing/hearing a lot of questions about this and if we post it, we may create an issue where one does not currently exist.

From: Burnell, Scott
Sent: Thursday, March 24, 2011 4:51 PM
To: Hayden, Elizabeth; Harrington, Holly
Subject: RE: Price-Anderson QA ready for use

I don't see why not.

From: Hayden, Elizabeth
Sent: Thursday, March 24, 2011 4:50 PM
To: Burnell, Scott
Subject: RE: Price-Anderson QA ready for use

Are these appropriate for 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: Burnell, Scott
Sent: Thursday, March 24, 2011 4:09 PM
To: Brenner, Eliot; Hayden, Elizabeth; Couret, Ivonne; McIntyre, David; Janbergs, Holly; Screnci, Diane;

Am/58

Sheehan, Neil; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Dricks, Victor;
Uselding, Lara

Subject: Price-Anderson QA ready for use

These are good to go, folks!

Frequently Asked Questions

1. What is the Price-Anderson Act?

In 1957, a federal law called the Price-Anderson Act was established to ensure that adequate money would be available to pay insurance claims following an accident at a commercial nuclear power plant. That law is still in place to protect those that live around nuclear power plants.

2. My insurance agent said that my homeowner's insurance does not cover nuclear accidents. Does Price-Anderson protect me?

Your homeowner's insurance policy does not cover nuclear accidents because Price-Anderson covers claims related to nuclear accidents. By law, owners of nuclear power plants are required to purchase \$375 million of offsite liability insurance for each reactor at the plant. If a nuclear accident causes damages of more than \$375 million, the insurance is supplemented by additional coverage that is shared by every nuclear power plant in the country. There are currently 104 reactors licensed to operate in the United States, so this secondary pool of money contains about \$12.6 billion. If all of this secondary money is used, Congress would determine whether to provide additional disaster relief.

3. The Price-Anderson Act is a federal law? Why does the government spend my tax dollars on providing nuclear insurance to big energy companies?

The Price-Anderson Act is a federal law, but your tax dollars do not pay for the insurance it requires owners of nuclear power plants to purchase. The extra insurance protection required for large commercial nuclear power companies is purchased at no cost to the public or the federal government.

4. My insurance company is a nationally known, reputable business that I trust. What insurance company does the nuclear plant use – a good one or the cheapest one they can find?

All U.S. nuclear power plant owners purchase their Price-Anderson insurance from American Nuclear Insurers (ANI), which is made of several large and reputable insurance companies. About half of the ANI companies are foreign insurance businesses. On average, a nuclear power plant owner pays about \$400,000 per year for Price-Anderson insurance at a single-unit reactor site. For power plants with more than one reactor, the total annual insurance cost is typically discounted, similar to automobile insurance for households with more than one car.

5. More than a million people live within 50 miles of Plant X. How is a \$375 million insurance policy supposed to cover all of us?

The Price-Anderson Act is a federal law that requires owners of nuclear power plants to purchase \$375 million of offsite liability insurance for each reactor at the plant. If a nuclear accident causes damages of more than \$375 million, the insurance is supplemented by additional coverage that is shared by every nuclear power plant in the country. There are currently 104 reactors licensed to operate in the United States, so this secondary pool of money

contains about \$12.6 billion. If all of this secondary money is used, Congress would determine whether to provide additional disaster relief.

6. Why does the NRC let a private insurance company determine the amount of insurance coverage? Why does this private company control public protection?

The intent of the Price-Anderson Act was to allow the government to regulate the safety of nuclear power while allowing the private insurance industry to provide financial protection. The NRC is the government agency that is responsible for ensuring that nuclear power plants are designed and operated in a way that protects public health and safety. The NRC is confident that the amount of insurance coverage determined by the private insurance company is adequate to provide financial compensation in the event of a nuclear accident.

7. The accidents in Japan affected the reactors and the spent fuel pools. Does the Price-Anderson Act cover all nuclear plant accidents or just some of them?

The Price-Anderson Act covers all property and liability claims resulting from nuclear accidents at commercial nuclear power plants. This includes any incident related to the reactor or the spent fuel pool. Price-Anderson also covers claims related to transporting nuclear fuel and nuclear waste in and out of the plant.

8. I'll have to find another place to stay if I have to evacuate my home during a nuclear accident. I can't afford to pay for a hotel or apartment for several months while the government tries to clean things up. How am I supposed to pay for that?

Insurance under the Price-Anderson Act covers bodily injury, sickness, disease or resulting death, property damage and loss, and reasonable living expenses for people who are evacuated from a nuclear accident. The Stafford Act is another federal law that provides disaster relief to state and local governments. If a nuclear accident is declared an emergency or major disaster by the President, the Stafford Act will also be available to provide assistance to accident victims. The Stafford Act allows the federal and state governments to share costs of temporary housing for up to 18 months. It also provides additional money for home repair and temporary mortgage or rental payments. Distribution of Stafford Act funding is done through the Federal Emergency Management Agency. Together, the Price-Anderson and Stafford Acts provide money for a variety of expenses following a nuclear accident.

9. Has Price-Anderson ever been used?

Only once. During the 1979 accident at the Three Mile Island Nuclear Power Plant, the Price-Anderson Act provided liability insurance to the public. The day after the accident, insurance company representatives established a local claims office in Pennsylvania. Advertisements were placed in local newspapers to inform residents of claims procedures. The insurance paid for the living expenses of families who decided to evacuate, although evacuation was not immediately ordered. When Pennsylvania's governor recommended the evacuation of pregnant women and families with young children who lived near the plant, the insurance paid for those evacuation expenses, too. In 1979, more than 3000 people received nearly \$1.2 million in evacuation claims. More than 600 people were also reimbursed for lost wages as a result of the accident. In the months after the accident, numerous lawsuits were filed alleging various

injuries and property damages. To date, the Price-Anderson insurance has paid about \$71 million in claims and litigation costs associated with the Three Mile Island accident. All payments were made from the primary insurance coverage. Money from the secondary layer of insurance was not needed.

10. When does the Price-Anderson Act expire?

In 2005, the Price-Anderson Act was extended through December 31, 2025.

From: [Hayden, Elizabeth](#)
To: [Anderson, Brian](#)
Subject: RE: GI-199 talking points, Q&A
Date: Thursday, March 24, 2011 6:23:00 PM

What will the GL ask of licensees?

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: Anderson, Brian
Sent: Thursday, March 24, 2011 6:08 PM
To: Hayden, Elizabeth; Burnell, Scott; Harrington, Holly
Subject: GI-199 talking points, Q&A
Importance: High

Please let me know if anything else is needed,
Brian

GI-199:

Talking Points

- The NRC's GI-199 safety risk assessment was completed in August 2010. It is publically available.
- The purpose of the GI-199 safety risk assessment was to perform a conservative, screening-level assessment to determine whether additional seismic safety review was needed for nuclear plants in the Central and Eastern United States (CEUS).
- Updates to seismic data and models indicate increased seismic hazard estimates for some operating nuclear power plant sites in CEUS.
- The results of this assessment are not final estimates of plant-specific seismic risk.
- The NRC does not rank plants by seismic risk.
- The NRC continues to conclude that all plants have adequate seismic safety margin and continue to operate safely.

Q&A

1. What is GI-199?

Generic Issue 199 investigates the safety implications of updated earthquake-related data and models. These updated data and models suggest that the probability for earthquake ground shaking above the seismic design basis for some nuclear power plants in the

Am/59

Central and Eastern United States (CEUS) is still low, but larger than previous estimates.

2. Are the NRC reviews/analyses based on 2004 seismic data from USGS? Is there other updated earthquake information and modeling?

In 2004, preliminary results from United States Geological Survey (USGS) work indicated an increase in the probability of exceeding the Safe Shutdown Earthquake (SSE) for 29 nuclear power sites in the CEUS. The probability increases identified by USGS were primarily due to recent developments in the modeling of earthquake ground motion in the CEUS. USGS published updated data in 2008, which is what was used in the NRC's GI-199 safety risk assessment.

3. The NRC report talks about "screening reviews." What does that mean?

In December 2007, NRC completed a limited scope screening analysis, which is used by the NRC staff to decide whether an issue requires additional review. The screening compared the new seismic data with earlier seismic evaluations conducted by the NRC staff. The limited scope screening analysis concluded that seismic designs of plants in the CEUS continue to provide adequate safety margins. However, because the NRC recognized that this new seismic data could reduce available safety margins, the NRC staff conducted further analysis by performing NRC's GI-199 safety risk assessment.

4. Does the GI-199 study examine all nuclear power plants?

The GI-199 safety risk assessment is limited to all plants in the CEUS. Although plants at the Columbia, Diablo Canyon, Palo Verde, and San Onofre sites are not included in the GI-199 safety risk assessment, the NRC Information Notice on GI-199 is addressed to all operating power plants in the U.S. (as well as all independent spent fuel storage installation licensees). The NRC will also consider inclusion of operating reactors in the Western U.S. in its future generic communication information requests.

5. Does the GI-199 study consider spent fuel pools?

Spent fuel pools (SFPs) were not specifically evaluated as part of GI-199 safety risk assessment. However, based on their design characteristics, the NRC concludes that SFPs remain safe. SFPs are constructed of reinforced concrete, several feet thick, with a stainless steel liner to prevent leakage and maintain water quality. SFPs are inherently structurally-rugged and are designed to the same seismic requirements as the nuclear plant.

6. What happens next with GI-199?

The NRC is developing a Generic Letter (GL) to request information from all nuclear plants in the CEUS, which is a total of 96 operating reactors. The GL is scheduled to be issued for public comment in the late spring 2011. In addition its internal review processes, the

NRC will also present the GL to the Advisory Committee on Reactor Safeguards (ACRS) both before and after the public comment period. The GL should be issued by end of 2011, near the time when new seismic models become available. These new seismic models are being developed by NRC, DOE, and EPRI. In addition the USGS will review the model. Information requested in the GL will likely require 3 to 6 months for nuclear plant licensees to prepare. NRC's review will be on-going as information is collected. Based on NRC's review of that information, a determination will be made regarding required changes at nuclear plants.

7. What if the GI-199 is wrong and an unexpected earthquake happens?

Following the events of September 11, 2001, NRC required all nuclear plant licensees to take additional steps to protect public health and safety in the event of a large fire or explosion. If needed, these additional steps could also be used during natural phenomena such as earthquakes, tornadoes, floods, and tsunamis. In general, these additional steps are plans, procedures, and pre-staged equipment whose intent is to minimize the effects of adverse events. In accordance with NRC regulations, all nuclear power plants are required to maintain or restore cooling for the reactor core, containment building, and spent fuel pool under the circumstances associated with a large fire or explosion. These requirements include using existing or readily available equipment and personnel, having strategies for firefighting, operations to minimize fuel damage, and actions to minimize radiological release to the environment.

From: [HOO Hoc](#)
To: [HOO Hoc](#)
Subject: FYI: Senior Managers Availability for 03-28-2011 to 04-03-2011
Date: Thursday, March 24, 2011 7:29:34 PM
Attachments: [Senior Manager Availability Guidance - Attachment 3.pdf](#)
[Senior Manager Request - Distribution Matrix update 03-24-11.doc](#)
[Senior Management & ET Availability 03-28-2011 to 04-03-2011.pdf](#)

Attached is the Senior Managers Availability for the next week (3/28 – 4/03), the EDO Staff Memo concerning notification of the Operations Center when an ET member is not available and the Senior Managers Availability Request-Distribution Matrix.

If there are any updates, please contact the Operations Center at (301) 816-5100.

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



Am/60

January 15, 2010

MEMORANDUM TO: Those on the Attached List

FROM: R. W. Borchardt /RA/
Executive Director for Operations

SUBJECT: SENIOR MANAGER AVAILABILITY GUIDANCE

This memorandum supersedes the previous Executive Director for Operations (EDO) guidance regarding senior Nuclear Regulatory Commission (NRC) manager availability (Agencywide Documents Access and Management System (ADAMS) Accession No. ML060370343). This memorandum, which provides guidance for tracking the availability of members of the Executive Team (ET) and designated senior managers authorized to issue orders in response to an imminent security threat to an NRC-licensed facility, incorporates recent changes in the delegated authority to issue orders in response to imminent security threats as discussed below. This guidance will ensure that the NRC remains ready to respond to an emergency or hostile activity that threatens a regulated nuclear activity.

Offices that provide members for the ET are expected to provide and maintain detailed (date and time) information whenever their ET members anticipate that they will be out of the local area and/or not available to respond as a member of the ET. Additionally, these offices will include and reflect, in their normal procedures for issuing acting memoranda for periods of absence, any unavailability for ET response activities (including off-hours and weekend periods).

In addition to the expectations above, pursuant to the Staff Requirements Memorandum for COMSECY-09-0021, dated October 2, 2009, and the EDO Memorandum, "Modified Delegation of Authority to Issue Orders in Response to Imminent Security Threats," dated November 20, 2009 (ML092670411), designated senior managers are expected to update or revise the detailed (date and time) information whenever they anticipate that they will be unavailable to respond to an imminent security threat requiring them to issue orders. The following designated managers have the authority to issue orders to both reactor and materials licensees in response to an imminent security threat, and this authority cannot be delegated:

- EDO
- Deputy Executive Director for Reactor and Preparedness Programs
- Deputy Executive Director for Materials, Waste, Research, State, Tribal and Compliance Programs
- Director, Office of Nuclear Material Safety and Safeguards
- Director, Office of Nuclear Reactor Regulation
- Director, Office of Nuclear Security and Incident Response (NSIR)
- Deputy Director, NSIR

CONTACT: William Gott, NSIR/DPR
301-415-7036

Those on the Attached List

2

If the listed managers are unavailable to exercise this authority for short periods of time (defined as 4 hours or more, but less than 1 day), they should notify the Headquarters Operation Officers (HOOs) prior to their unavailability, as time or opportunity permits. A designated manager may become unavailable as a result of being in meetings without cell phone access, airline travel or location in other unreachable areas. By maintaining this level of response availability, the NRC will maximize the reliability of the HOOs reaching a decision-maker in a timely manner when time is most crucial. The limitation of available resources on shift, in combination with the various actions necessary to be conducted during an imminent attack scenario, requires the notification process be as simple and direct as possible. For this reason, the HOOs will use "blast dialing" of Agency-issued personal digital devices (Blackberry) as the primary method of contact. This will minimize the likelihood of reaching an unintended party (e.g., spouse, support staff) during a time-critical evolution.

In order to assure the efficacy of this availability strategy for managers authorized to issue orders during imminent security threat conditions, the HOOs have been directed to institute a testing regimen. A communications test will be conducted on a monthly basis, consistent with the availability information provided, at random times to include weekends and holidays. The results of the information will be provided to each of the managers after each test. The test will seek to confirm that individuals are available and can be successfully reached in a timely manner.

The NSIR Operations Branch staff will provide an availability matrix on a weekly basis to the appropriate offices. The offices should update the matrix each week and return the information as soon as practicable, but no later the Thursday of each week. This will allow NSIR to ensure with high reliability the availability of ET members and designated senior managers. NSIR will track the availability information and provide weekly updates of ET availability to senior management in headquarters and the regions. The enclosure to this memorandum provides an example of the weekly information needed. The listed offices should send the requested information via e-mail to the Operations Center (e-mail: HOO.HOC@NRC.GOV) by Thursday of each week to allow the HOOs to verify the information transmittal and receipt.

Enclosure:

As stated

cc: Chairman Jaczko
Commissioner Klein
Commissioner Svinicki
SECY

~~OFFICIAL-USE-ONLY--SENSITIVE-INTERNAL-Information~~

Memo to Those on the Attached List from R. W. Borchardt dated January 15, 2010

SUBJECT: SENIOR MANAGER AVAILABILITY GUIDANCE

Bruce S. Mallett, Deputy Executive Director for Reactor and Preparedness Programs, OEDO	RidsEdoMailcenter Resource
Martin J. Virgilio, 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
Charles L. Miller, Director, Office of Federal and State Materials and Environmental Management Programs	RidsFsmeOd Resource
Cynthia A. Carpenter, Deputy Director, Office of Federal and State Materials and Environmental Management Programs	RidsFsmeOd Resource
Larry W. Camper, Director, Division of Waste Management and Environmental Protection, FSME	RidsFsmeOd Resource
Michael F. Weber, Director, Office of Nuclear Material Safety and Safeguards	RidsNmssOd Resource
Catherine Haney, Deputy Director, Office of Nuclear Material Safety and Safeguards	RidsNmssOd Resource
Daniel H. Dorman, Director, Division of Fuel Cycle Safety and Safeguards, NMSS	RidsNmssOd Resource
Vonna Ordaz, Director, Division of Spent Fuel Storage and Transportation, NMSS	RidsNmssOd Resource
Michael R. Johnson, Director, Office of New Reactors	RidsNroOd Resource
Eric J. Leeds, Director, Office of Nuclear Reactor Regulation	RidsNrrOd Resource
Bruce A. Boger, Deputy Director for Reactor Safety Programs, Office of Nuclear Reactor Regulation	RidsNrrOd Resource
John A. Grobe, Deputy Director for Engineering and Corporate Support, Office of Nuclear Reactor Regulation	RidsNrrOd Resource
James T. Wiggins, Director, Office of Nuclear Security and Incident Response	RidsNsirOd Resource
William M. Dean, Deputy Director, Office of Nuclear Security and Incident Response	RidsNsirOd Resource
Roy P. Zimmerman, Director, Office of Enforcement	RidsOeOd Resource
Brian W. Sheron, Director, Office of Nuclear Regulatory Research	RidsResOd Resource

~~OFFICIAL-USE-ONLY--SENSITIVE-INTERNAL-Information~~

Attachment NRC.joboptions (13738 Bytes) cannot be converted to PDF format.

Senior Managers Availability Request-Distribution Matrix

EXECUTIVE TEAM SENIOR MANAGERS	NAME	Senior Manager Availability Request	PHONES	Senior Manager Availability for Distribution (cc copy to Senior Manager Availability Request)
	Gregory Jaczko	Patti Pace	1820	Patti Pace, Joshua Batkin, John Monninger
	Kristine Svinicki	Janet Lepre, Carolyn Harves	1855, 1850	Jeffry Sharkey
	George Apostolakis	Kathleen Blake, Carmel Savoy	1810, 1801	Belkys Sosa
	William Magwood	Carrie Crawford	8420, 1895	Patrice Bubar
	William C. Ostendorff	Linda Herr, Sunny Bozin	1759, 1800	Linda Herr
EDO	Bill Borchardt	Renee Taylor	1700	Bill Borchardt
	Marty Virgilio	Sandy Cianci	1714	Marty Virgilio
	Michael Weber	Sandy Cianci	1714	Mike Weber
	Darren Ash	Stephanie Garland	8704	Darren Ash
	Cynthia Carpenter***	Cynthia Carpenter	3641	Cynthia Carpenter
NSIR	Jim Wiggins	Amy Salus	7476	Jim Wiggins
	Vacant	Amy Salus	7476	vacant
	Patricia Holahan	Christina Merritt, Adriane Bowman	6828	Patricia Holahan
	Brian McDermott	Tamyra Brockington	2334	Brian McDermott
NRR	Eric Leeds	Sherry Schwarz (1274), Eric Leeds	1270	Eric Leeds
	Bruce Boger	Sherry Schwarz (1274)	1270	Bruce Boger
	John Grobe	Sherry Schwarz (1274)	1270	John Grobe
NMSS	Catherine Haney	Dwight Walker, Debra Damiano	492-3239, 492-3300	Catherine Haney
	Dan Dorman	Dwight Walker, Debra Damiano	3239, 3300	Dan Dorman
	Vonna Ordaz	Dwight Walker, Debra Damiano	3239, 3300	Vonna Ordaz
RES	Brian Sheron	Shirley Flory, Debra Veltri, Brian Sheron	6641, 6688	Brian Sheron
	Jennifer Uhle	Shirley Flory, Debra Veltri, Brian Sheron	251-7400	James Lyons

*** On Rotation

Senior Managers Availability Request-Distribution Matrix

SELECTED SENIOR MANAGERS	NAME	Senior Manager Availability Request	Senior Manager Availability for Distribution (cc copy to Senior Manager Availability Request)
NRO	Michael Johnson	Melissa Penny (x1897), Patricia Sprogeris (x7192)	Michael Johnson
	Gary Holahan	Melissa Penny (x1897), Patricia Sprogeris (x7192)	Gary Holahan
	Laura Dudes	Melissa Penny (x1897), Patricia Sprogeris (x7192)	Glenn Tracy
	Michael Mayfield	Melissa Penny (x1897), Patricia Sprogeris (x7192)	Michael Mayfield
	Charles Ader	Melissa Penny (x1897), Patricia Sprogeris (x7192)	Charles Ader
FSME	Charlie Miller	Marcia Casby (x7197), Sandra Rodriguez (x7319)	Charlie Miller
	Larry Camper	Marcia Casby (x7197), Sandra Rodriguez (x7319)	Larry Camper
	Scott Moore	Marcia Casby (x7197), Sandra Rodriguez (x7319)	Scott Moore
OGC	Stephen Burns	Deborah Pulley, Teresa Mayberry, Stephen Burns	Stephen Burns
SECY	Annette Vietti-Cook	Darlene Wright, Antoinette Lewis	Annette Vietti-Cook
	Andrew Bates	Darlene Wright, Antoinette Lewis	Andrew Bates
	Ken Hart	Darlene Wright, Antoinette Lewis	Ken Hart
OCA	Rebecca Schmidt	Nancy Belmore (1776)	Rebecca Schmidt
OPA	Eliot Brenner	Victoria Ibarra (8209), Brenda Akstulewicz (8209)	Eliot Brenner
	Beth Hayden	Victoria Ibarra (8209), Brenda Akstulewicz (8209)	Beth Hayden
OIP	Margaret Doane	Janine Armstrong, Jane Kreuter, Margaret Doane	Margaret Doane
	Nader Mamish	Janine Armstrong, Jane Kreuter, Nader Mamish	Nader Mamish
OCFO	James Dyer	Sharon Hudson (7322), Marv Ellis (7322)	James Dyer
	Milton Brown	Sharon Hudson (7322), Marv Ellis (7322)	Milton Brown
OIS	Thomas Boyce	Tina Higginbotham(8700), Brenda Ross, Joan DePristo	Thomas Boyce
	James Schaeffer	Brenda Ross (7330), Tina Higginbotham, Joan DePristo	James Schaeffer
ADM	Sharon Stewart* (Temporary)	Lynn Ronewicz (492-3500), Stacy Schumann	Sharon Stewart
	Barbara Gusack* (Temporary)	Lynn Ronewicz (492-3500), Stacy Schumann	Barbara Gusack
	Mary Jane Ross-Lee	Lynn Ronewicz (492-3500), Stacy Schumann	Mary Jane Ross-Lee (after 3/14)
OE	Roy Zimmerman	Nasreen Hasan (2741), Nicole Riddick (2741)	Roy Zimmerman

Senior Manager's Availability: 03/28/2011 - 04/03/2011

Call List 700

Key: A = Available to Respond, X = Not Available to Respond, D = Designated Executive Team Director and Available to Respond. **Bold Red (A*)** = Imminent Security Threat Authority

NRC SENIOR MANAGEMENT	NAME	MON 03/28	TUE 03/29	WED 03/30	THUR 03/31	FRI 04/01	SAT 04/02	SUN 04/03
COMMISSIONERS	Gregory Jaczko	A	A	A	A	A	A until 3:00PM	X
	Kristine Svinicki	A	A	A	A	A	A	A
	George Apostolakis	A	A	X	A	A	A	A
	William D. Magwood, IV	A	A	A	A	A	A	A
	William Ostendorff	A	A	A	A by cell from 0730-1200	A	A	A
EDO	Bill Borchardt	A*	A*	A*	A*	X	X	X
	Marty Virgilio	A*	A*	A*	A*	A*	A*	A*
	Mike Weber	A*	A*	A*	A*	A*	A*	A*
	Darren Ash	A	A	A	A	A	A	A
	Cynthia Carpenter***	A	A	A	A	A	X	A
NSIR	Jim Wiggins	A*	A*	A*	A* til 1700	X	X	X til 2000
	Vacant							
	Patricia Holahan	A	A	A	A	A	A	A
	Brian McDermott	A	A	A	A	A	A	A
NRR	Eric Leeds	A*	A*	A*	A*	A*	A*	A*
	Bruce Boger	X	A	A	A	A	A	A
	John Grobe	X	A	A	A	X	X	X
NMSS	Catherine Haney	A*	A*	A*	A*	A*	A*	A*
	Dan Dorman	X	X	X	X	X	X	X
	Vonna Ordaz	A	A	A	A	A	A	A
RES	Brian Sheron	A	A	A	A	A	A	A
	Jennifer Uhle	A	A	A	A	A	A	A

3/24/2011 19:22

*** On Rotation

Senior Manager's Availability: 03/28/2011 - 04/03/2011

Call List 700

Key: A = Available to Respond, X = Not Available to Respond, D = Designated Executive Team Director and Available to Respond. **Bold Red (A*)** = Imminent Security Threat Authority

NRC SENIOR MANAGEMENT	NAME	MON 03/28	TUE 03/29	WED 03/30	THUR 03/31	FRI 04/01	SAT 04/02	SUN 04/03
NRO	Michael Johnson	A	A	X	X	A	A	A
	Gary Holahan	A	A	X	X	A	A	A
	Laura Dudes	A	A	X	X	A	A	A
	Michael Mayfield	A	A	X	X	A	A	A
	Charles Ader	A	A	X	X	A	A	A
FSME	Vacant							
	Scott Moore	A	A	A	A	A	A	A
	Larry Camper	A	A	A	A	A	A	A
OGC	Stephen Burns	A	A	A	A	A	A	A
SECY	Annette Vietti-Cook	A	A	A	A	A	A	A
	Andrew Bates	A	A	A	A	X	X	X
	Ken Hart	A	A	A	A	A	A	A
OCA	Rebecca Schmidt	A	A	A	A	A	A	A
OPA	Eliot Brenner	A	A	A	A	A	A	A
	Beth Hayden	A	A	A	A	A	A	A
OIP	Margaret Doane	A	A	A	A	X	X	X
	Nader Mamish	A	A	A	A	A	A	A
OCFO	James Dyer	A	A	A	A	A	A	A
	Milton Brown	A	A	A	A	A	A	A
OIS	Tom Boyce	A	A	A	A	A	A	A
	Jim Schaeffer	A	A	A	A	A	A	A
ADM	Sharon Stewart*	A	A	A	A	A	A	A
	Barbara Gusack*	A	A	X	X	A	A	A
	Mary Jane Ross-Lee	A	A	A	A	A	A	A
OE	Roy Zimmerman	A	A	A	X	X	X	X

From: Google Alerts
To: Hayden, Elizabeth
Subject: Google Alert - Nuclear Regulatory Commission
Date: Thursday, March 24, 2011 10:00:14 PM

News

6 new results for **Nuclear Regulatory Commission**

What **NRC** nuclear documents do you want to see? Here's our list

msnbc.com

By Bill Dedman The Japanese nuclear emergency has, of course, raised interest in nuclear power in the United States. The federal **Nuclear Regulatory Commission's** public records staff says it is "experiencing a larger than normal volume" of requests for ...

[See all stories on this topic »](#)

PSEG **Nuclear** reexamining South Jersey proposal in wake of Japan crisis

newjerseynewsroom.com

In August, the **Nuclear Regulatory Commission** agreed to review PSEGNuclear's application for an early site plan permit for the new reactor in Lower Alloways Creek near its existing Salem and Hope Creek plants. "Nothing's changed" with the application, ...

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Commentary: FPL eager to expand **nuclear** capacity, suppress alternatives

Palm Beach Post

Hutchinson Island was evacuated, two bridges were immobilized, and 120 National Guard troops were deployed to guard the nuclear plant on the barrier island. On July 15, 2010, I appeared at a **Nuclear Regulatory Commission** meeting in Homestead and ...

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Japan Disaster Raises Questions About Backup Power at US **Nuclear** Plants

New York Times

By MIKE SORAGHAN of Greenwire The batteries that back up power at most US nuclear plants are required to last about as long as the average cellphone battery -- four hours. The **Nuclear Regulatory Commission** says that's enough. The agency's critics say ...

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Storage of **Nuclear** Waste Gets New Scrutiny

Wall Street Journal

In a letter Monday to **Nuclear Regulatory Commission** Chairman Greg Jaczko and Energy Secretary Steven Chu, officials in Massachusetts urged the Obama administration to address the storage issue, saying some nuclear plants in or near Massachusetts use ...

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Durbin says he will quiz experts on Illinois **nuclear** safety during forum that ...

CanadianBusiness.com

The Democrat says he and fellow US senator, Republican Mark Kirk, will host a forum in Chicago on Friday that will include the **Nuclear Regulatory Commission** and the Illinois Emergency Management Agency. Durbin told The McDonough County Voice that he ...

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AM/61

Create another alert.

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From: [NRC Announcement](#)
To: [NRC Announcement](#)
Subject: Daily: 6 New Items from Thursday, March 24, 2011
Date: Thursday, March 24, 2011 10:04:27 PM

NRC Daily Announcements



Highlighted Information and Messages



Thursday March 24, 2011 -- Headquarters Edition

EWRA: Update Regarding the Geranium Sale for the Earth Day Celebration
Employee Resources: Work Schedule and Premium Pay Guidance for Response to Events in Japan

Policy Reminder: Reminder on Use of Travel Charge Card Policies

General Interest: CPR/AED Training Classes

Employee Resources: Rotational Opportunity - NSIR/DSO/RSOB, Cyber Security Specialist/Program Manager, GG-12/13/14/15

Employee Resources: Rotational Opportunity - NSIR/DSO/RSOB, Cyber Security Specialist, GG-7/9/11 - Multiple Positions

EWRA: Update Regarding the Geranium Sale for the Earth Day Celebration

The EWRA regrets to inform our loyal patrons that the annual Geranium sale will not take place this year. Based on prior years' inventory of plants that have been sold, the vendor informed us that they will not be able to accommodate EWRA and its Earth Day celebration this year.



(2011-03-24 00:00:00.0)

[View item in a new window](#)

Employee Resources: Work Schedule and Premium Pay Guidance for Response to Events in Japan

NRC has implemented various work schedule and premium pay flexibilities as it strives to accommodate the challenging and often unpredictable work schedule and premium pay needs of employees responding to events in Japan. The Office of Human Resources (HR) has distributed information to managers, supervisors, responders, and timekeepers to summarize the options and guidelines for determining work schedules and premium pay for employees serving in and supporting the Operations Center, or working in Japan. The guidance applies to employees whose Offices/Regions determine that the employees directly support response efforts in the Operations Center and Japan even if the employees do not physically work in the Operations Center.

HR has posted the [Work Schedule and Premium Pay Guidance](#) on its intranet page and expects to add frequently asked questions. Based on questions received so far, HR notes that:

Am/62

- For employees on a NEWFlex schedule, HRMS will not accept more than 11.25 hours of regular work per day. Any amount worked beyond that on a single work day must be entered as overtime or compensatory time worked rather than regular time. (Employees on Expanded Compressed schedules may work more than 11.25 regular hours per day.)
- The maximum number of credit hours that an employee may carry over from one pay period to the next remains 24 credit hours. This is restricted by a governmentwide rule.
- Although the guidance applies to Senior Executive Service members (executives), executives remain ineligible for premium pay or credit hours as a matter of governmentwide law.

For further information about selecting work schedules and authorizing premium pay for responders, please contact [Lawrence Davidson](#), 301-492-2286.



(2011-03-24 00:00:00.0)

[View item in a new window](#)

Policy Reminder: Reminder on Use of Travel Charge Card Policies

Yellow Announcement No. 037, "Reminder on Use of Travel Charge Card Policies," is now available on the [internal Web site](#) under Yellow Announcements.

This announcement can also be found in the ADAMS 2011 Yellow Announcements folder in the Main Library of the ADAMS Document Manager. In the folder, Yellow Announcements are arranged in report number order.

If you have difficulty accessing a Web link in this announcement, contact the [NRC Announcement Coordinator](#), Beverly Martin, ADM/DAS, 301-492-3674.



(2011-03-24 00:00:00.0)

[View item in a new window](#)

General Interest: CPR/AED Training Classes

The Office of Human Resources is offering CPR training courses, entitled "Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED) for the Community and Workplace" for employees who wish to become CPR certified or maintain their CPR certification. The classes will be held at the Professional Development Center in Bethesda.

Listed below are the dates and time for the training:

Wednesday, April 20, 2011	8:30 a.m. - 12:30 p.m.
Thursday, April 28, 2011	8:30 a.m. - 12:30 p.m.
Wednesday, May 11, 2011	8:30 a.m. - 12:30 p.m.

If you would like to attend one of these sessions, please register through [iLearn](#).

Please remember that CPR certification is valid for 2 years from the date of issuance. To maintain a current certification, you have to attend a training session.

Course Description

- Covers the proper way to recognize and respond to an emergency in which a person may need CPR or an AED
- Taught by certified instructors from MedicFirst Aid International, Inc.
- Course duration - 4 hours
- 12 students per class
- Upon completion, the participants will be certified for 2 years

For additional information including training dates, please visit the HR [CPR/AED Web site](#).

Contact: [Sandra Johnson](#), HR/WLBB, 301-492-2284



(2011-03-24 00:00:00.0)

[View item in a new window](#)

Employee Resources: Rotational Opportunity - NSIR/DSO/RSOB, Cyber Security Specialist/Program Manager, GG-12/13/14/15

The **Office of Nuclear Security and Incident Response, Division of Security Operations, Reactor Security Oversight Branch**, has one rotational opportunity for a **Cyber Security Specialist/Program Manager** for employees at the **GG-12/13/14/15 level**. This rotation will last for 6-12 months, beginning in mid-to-late April 2011.

Detailed information is available on the [NRC internal Web page](#).

If you have difficulty accessing a Web link in this announcement, contact the [NRC Announcement Coordinator](#), Beverly Martin, ADM/DAS, 301-492-3674.



(2011-03-24 00:00:00.0)

[View item in a new window](#)

Employee Resources: Rotational Opportunity - NSIR/DSO/RSOB, Cyber Security Specialist, GG-7/9/11 - Multiple Positions

The **Office of Nuclear Security and Incident Response, Division of Security Operations, Reactor Security Oversight Branch**, has multiple rotational assignment opportunities for NRC employees as a **Cyber Security Specialist** at the **GG- 7/9/11** grade level in the Cyber Security Area. This rotation will last for 3+ months, beginning in mid-to-late April 2011.

Detailed information is available on the [NRC internal Web page](#).

If you have difficulty accessing a Web link in this announcement, contact the [NRC
Announcement Coordinator](#), Beverly Martin, ADM/DAS, 301-492-3674.



(2011-03-24 00:00:00.0)

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[Frequently Asked Questions About the NRC Daily Announcements Email](#)

From: Jean.GAUVAIN@oecd.org
To: Hayden, Elizabeth
Subject: RE: NEA - Draft Minutes of WGPC-12 meeting - NRC" Review
Date: Friday, March 25, 2011 3:08:05 AM

Thank you very much Beth,

Today in WGPC we have 20 Member countries, 2 observer countries, 2 international organisation and 5 corresponding member countries

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile +33 6 79 94 81 93

From: Hayden, Elizabeth [mailto:Elizabeth.Hayden@nrc.gov]
Sent: Thursday, March 24, 2011 19:34
To: GAUVAIN Jean, NEA/SURN; 'Luc.CHANIAL@asn.fr'; 'stanislaw.janikowski@paa.gov.pl'; 'camelia.liutiev@cncan.ro'; 'dagmar.zemanova@ujd.gov.sk'; 'mcle@csn.es'; 'R.Spiegelberg-Planer@iaea.org'
Cc: YOSHIMURA Uichiro, NEA/SURN; REIG Javier, NEA/SURN; 'yhhah@kins.re.kr'; 'Emmanuel.BOUCHOT@asn.fr'
Subject: Take 2 RE: NEA - Draft Minutes of WGPC-12 meeting for Participants' Review (before full distribution)

This time with the edits attached.

This looks good. I only had some minor edits.

Can you tell me how many countries have representatives in the WGPC? It looks like 26, but wanted to verify with you, Jean.

*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: Jean.GAUVAIN@oecd.org [mailto:Jean.GAUVAIN@oecd.org]
Sent: Wednesday, March 23, 2011 1:11 PM
To: Luc.CHANIAL@asn.fr; stanislaw.janikowski@paa.gov.pl; camelia.liutiev@cncan.ro; dagmar.zemanova@ujd.gov.sk; Hayden, Elizabeth; mcle@csn.es; R.Spiegelberg-Planer@iaea.org
Cc: Uichiro.YOSHIMURA@oecd.org; Javier.REIG@oecd.org; yhhah@kins.re.kr; Emmanuel.BOUCHOT@asn.fr
Subject: NEA - Draft Minutes of WGPC-12 meeting for Participants' Review (before full distribution)

Dear Participants to the 12th Meeting of the WGPC,

On behalf of the Chair, please find here attached the draft Minutes of the 12th WGPC meeting held last week at the NEA that have been prepared with the Chair and the NEA Secretariat.

I would appreciate receiving your comments as your earliest convenience so the final version can be distributed the whole WGPC without waiting too long.

Am/63

Please review all the document since countries are quoted art many places in this Summary Records due to the special organisation of the Report.

For ASN, I will also appreciate if Luc can review the part where he is quoted.

Thank you very much for your cooperation.
Best Regards

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile +33 6 79 94 81 93

From: Wheeless, Charlene
To: Brenner, Eliot
Cc: Hayden, Elizabeth; Allen, Michelle; Canavan, Francis
Subject: Re: Nice Chatting With You
Date: Friday, March 25, 2011 7:20:21 AM

Great, thanks!

Charlene Wheeless

On Mar 24, 2011, at 7:11 PM, "Brenner, Eliot" <Eliot.Brenner@nrc.gov> wrote:

Just FYI, I have tracked down a photocopy of the original cartoonish sketch worked out by our engineers in Rockville during discussions with NRC engineers in Japan, a later iteration and finally your schematic (does not have the circles showing which gear should be provided by Japan.) I also have someone I can use for interviews if necessary

Beth has the drawings and NRC contact names. We are looking for the original so we can make a PDF of it.

From: Wheeless, Charlene [<mailto:cwheeles@bechtel.com>]
Sent: Thursday, March 24, 2011 6:01 PM
To: Brenner, Eliot
Cc: Hayden, Elizabeth; Allen, Michelle; Canavan, Francis
Subject: Nice Chatting With You

Eliot,

I've summarized below what I've been able to gather regarding how this came about, what we're doing and where things stand today. In light of this, I anticipate that there may be renewed interest so we both may start getting calls soon. Here is an update—albeit cryptic:

The CEO of INPO asked for our help with logistics last week in support of a team of INPO, NEI, and NRC folks who were assembled to help the Japanese with the event. As it turned out we quickly found out that the help they needed was broader and deeper than just logistics. The assembled team was

Am/64

trying to design a Temporary Fuel Pool Cooling system which could be loaded into a transport and quickly flown to Japan to aid in the fuel pool cooling event. We (Bechtel) had a team of engineers design the system based on simple specs from the NRC and develop a bill of material for all the components. Tapping into our global supply chain, we were able to source the materials quickly. The system is basically big diesel driven pumps and interconnecting piping. We offered pro bono services. To date, we know that the Government of Japan has accepted the system and will take ownership of the Train 1 material currently staged at Yokota Air Base in Japan. There is a training session set for Friday at the air base where the supplier, REL out of Australia, will demonstrate how to use their equipment. There are 8 people at this time in the session, representing Hitachi, Tepco, and Toden Kogyo. The US Government is arranging transportation of the Train 1 material from Yokota Air Base to the site. The NRC is waiting on a decision from GoJ and Tepco as to how they intend to use the equipment. This will have a direct bearing on when, if, and what we ship to Japan with regard to Train 2.

Michelle and Francis, please send to Eliot and Liz your contact information.

Thanks,

C

Charlene A. Wheelless

Principal Vice President, Corporate Affairs

Bechtel Corporation

301.228.8981 (office)

240.409.9490 (mobile) —

301.228.9490 (fax)

cwheeles@bechtel.com

<image001.gif> <image002.gif><image003.gif><image004.gif><image005.gif>

From: Google Alerts
To: Hayden, Elizabeth
Subject: Google Alert - Nuclear Regulatory Commission
Date: Friday, March 25, 2011 7:52:50 AM

News

5 new results for **Nuclear Regulatory Commission**

Edwards asks **NRC** to review decision

Brattleboro Reformer

By CHRIS GAROFOLO / Reformer Staff MONTPELIER -- Stressing a major concern over the safety of Vermont Yankee following the natural disaster in Japan, Windham County lawmakers have proposed a resolution calling for the US **Nuclear Regulatory Commission** ...

[See all stories on this topic »](#)

Nuclear industry shielded from big disaster costs

CNNMoney

A 1982 study from Sandia National Laboratories, commissioned for the **Nuclear Regulatory Commission**, said the consequences of a nuclear meltdown would be catastrophic. The disaster could cause 50000 fatalities and \$314 billion in property damage. ...

[See all stories on this topic »](#)

Capps wants Diablo Canyon relicensing suspended, pending independent studies

Lompoc Record

Lois Capps on Thursday sought to suspend the relicensing process for Diablo Canyon Nuclear Power Plant until independent studies are performed and reviewed by state and federal experts. In a letter to the federal **Nuclear Regulatory Commission**, Capps, ...

[See all stories on this topic »](#)

Conflicting **NRC** rules could cause 'substantial safety hazard'

Brattleboro Reformer

By BOB AUDETTE / Reformer Staff BRATTLEBORO -- There is a contradiction in **Nuclear Regulatory Commission** regulations that could result in a reduction in the margin of safety for operating reactors. That was the conclusion reached by the **NRC's** Office of ...

[See all stories on this topic »](#)

Oldest US **nuclear** reactor: a 'disaster' in waiting?

AFP

The **Nuclear Regulatory Commission** extended Oyster Creek's license for another 20 years in 2009. The **NRC** not only gives out nuclear licenses but is the industry safety watchdog. That's a conflict of interest, say critics who liken the situation to the ...

[See all stories on this topic »](#)



AFP

Tip: Use a plus sign (+) to match a term in your query exactly as is. [Learn more.](#)

[Remove](#) this alert.

[Create](#) another alert.

[Manage](#) your alerts.

Am/65

From: [Nuclear Energy Overview](#)
To: [Hayden, Elizabeth](#)
Subject: Nuclear Energy Overview - March 24, 2011
Date: Friday, March 25, 2011 8:07:12 AM

Nuclear Energy Overview



March 24, 2011

This week's top story — Update on Events at Nuclear Power Plants in Japan

Tokyo Electric Power Company (TEPCO) continued efforts this week to stabilize the reactors at its Fukushima Daiichi nuclear power plant after the March 11 earthquake and tsunami. Workers were making progress on restoring some cooling systems to reactors 1 through 4 at the plant. Reactors 5 and 6 have offsite electric power and both reactors are in safe, cold shutdown mode, as are all four reactors at the nearby Fukushima Daini site. Efforts continued to cool the used fuel pools at Fukushima Daiichi.

Other Stories this week —

- US Government, Nuclear Industry Rally to Aid Japan and Fukushima
- NRC Launches Safety Review of US Nuclear Plants

You can view Overview by clicking [here](#).

Nuclear Energy Institute



Your questions, comments, suggestions or any additions to the mailing list are welcome. We can be reached at overview@nei.org. We look forward to hearing from you.

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For more information, visit www.nei.org.

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From: Hayden, Elizabeth
To: "MMallen@bechtel.com"
Subject: FW: Response - Bechtel equipment
Date: Friday, March 25, 2011 8:47:00 AM

Michelle,
Here is a link to some photos of the Bechtel equipment. I will send the drawings shortly.

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: Tuesday, March 22, 2011 12:08 PM
To: ET07 Hoc; ET05 Hoc; Hannah, Roger; Brenner, Eliot; Hayden, Elizabeth; RST01 Hoc; LIA06 Hoc
Cc: Castleman, Patrick; Casto, Chuck; Dorman, Dan; Batkin, Joshua; Coggins, Angela; Borchardt, Bill; Virgilio, Martin
Subject: Response - Bechtel equipment

Great photos. Thanks, Pat, for sharing.

From: Castleman, Patrick
Sent: Tuesday, March 22, 2011 11:04 AM
To: Orders, William; Snodderly, Michael; Franovich, Mike; Hipschman, Thomas; Marshall, Michael; Weber, Michael; Brown, Frederick
Subject: Bechtel equipment

Check out this link. It has pix of the Bechtel equipment being unloaded in Japan.

<http://www.yokota.af.mil/>

Am/67

From: Hayden, Elizabeth
To: "MMallen@bechtel.com"
Subject: FW: d4awings
Date: Friday, March 25, 2011 10:05:00 AM
Attachments: Document.pdf

Michelle,

Here are the 3 drawings on the equipment that evolved.

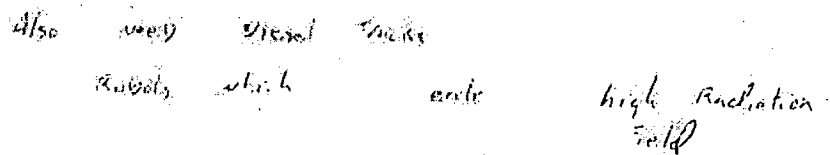
Beth Hayden
Senior Advisor
Office of Public Affairs
U.S. Nuclear Regulatory Commission
--- Protecting People and the Environment
301-415-8202
elizabeth.hayden@nrc.gov

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

From: ELIZABETH.HAYDEN@NRC.GOV [<mailto:ELIZABETH.hayden@nrc.gov>]
Sent: Friday, March 25, 2011 8:51 AM
To: Hayden, Elizabeth
Subject: d4awings

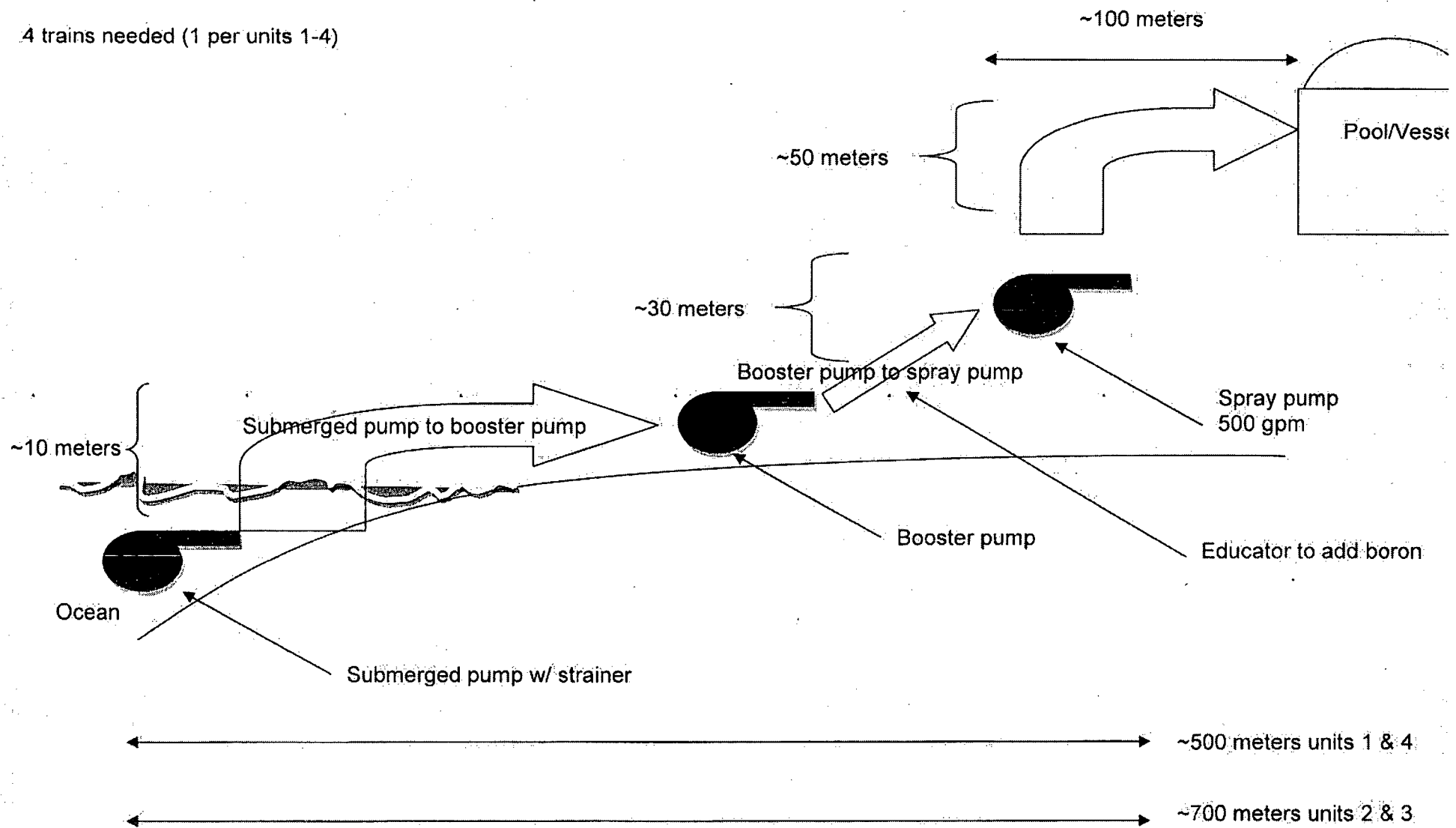
Am/68

Very	500	clean	100%	Unit 1
	700	medium	100%	Unit 2
	700	medium	100%	Unit 3
	500	medium	100%	Unit 4



TG Du 1960
 43FJ m

4 trains needed (1 per units 1-4)

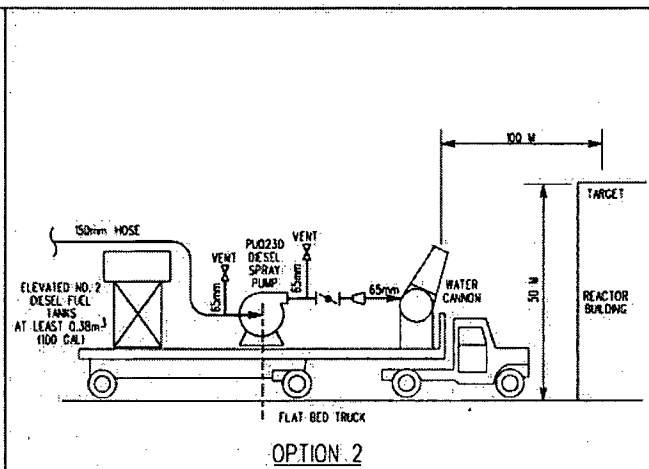
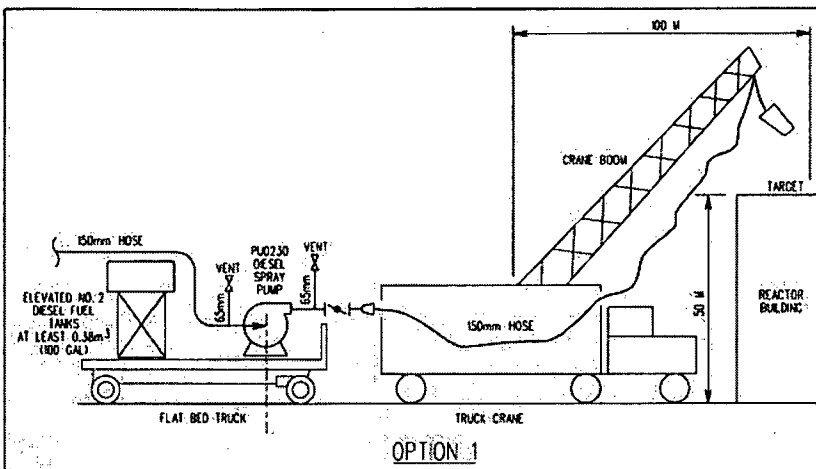


*Notes:

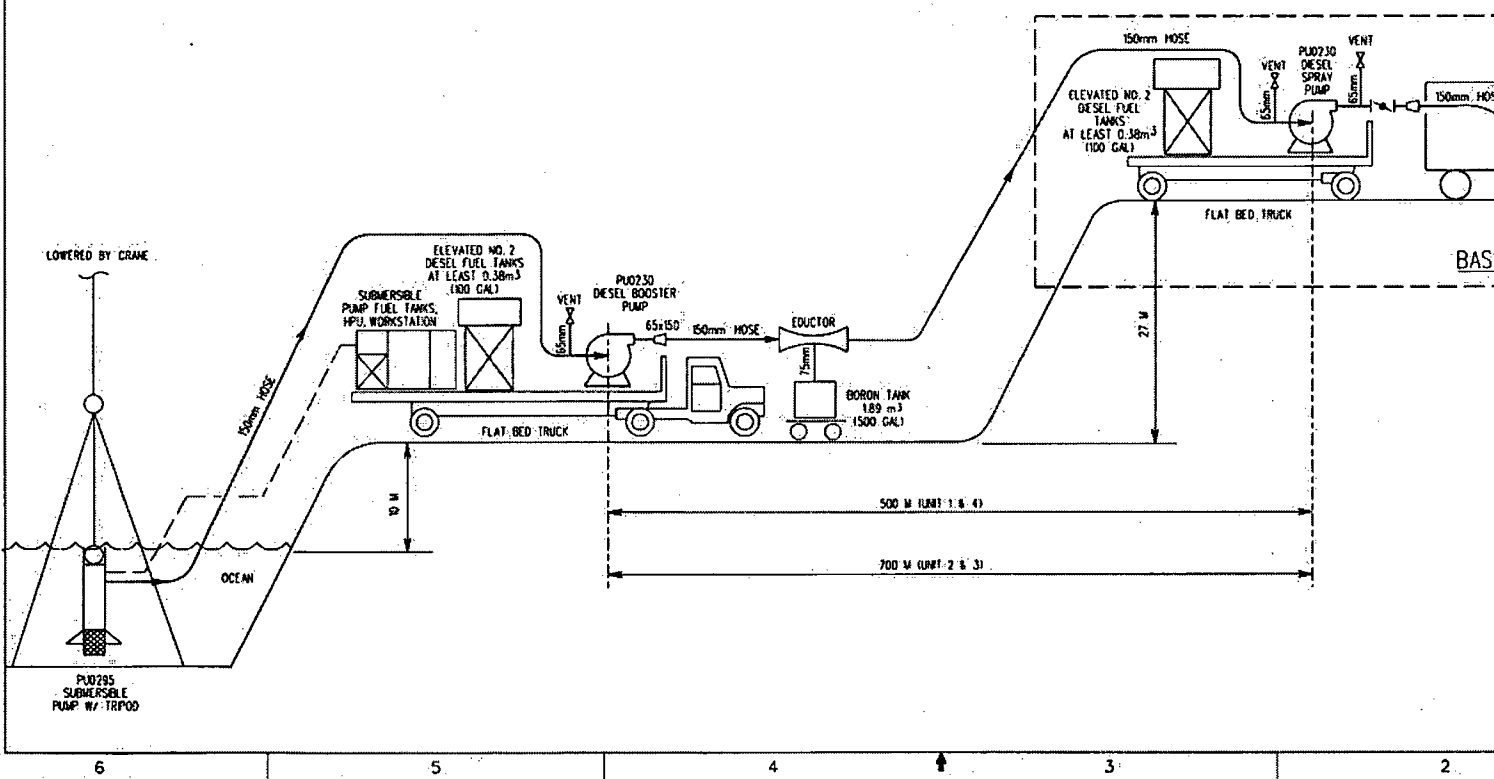
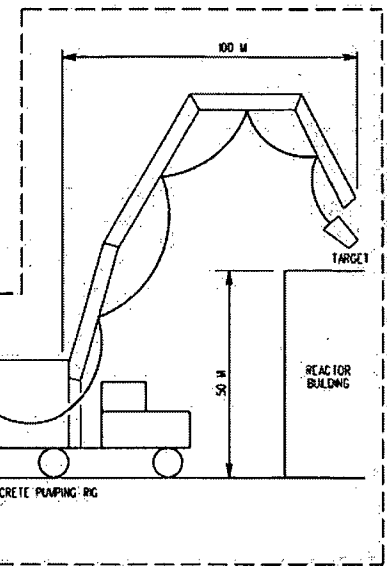
Also need diesel trucks

Robots to enter high radiation areas

Train 2



- NOTES:
1. 15.24M (50FT) OR 30.48M (100 FT) HOSE LENGTHS WITH QUICK CONNECT FITTINGS.
 2. ON SHORE SUBMERSIBLE PUMP ACCESSORIES INCLUDE HYDRAULIC POWER UNIT (HPU) PW0200A, THREE TK0045 FUEL TANKS INTERCONNECTED AND WORKSTATION PW0204.
 3. TWO ELEVATED TK0045 FUEL TANKS FOR EACH PU0230 PUMP ENGINE TUBING TO BE SEALED TO ENGINE SKID SMALL TANK.



EXAMPLE SHOWN IS ONE TRAIN

NEED:	600 METERS 150 mm HOSE FOR UNIT 1
	800 METERS 150 mm HOSE FOR UNIT 2
	800 METERS 150 mm HOSE FOR UNIT 3
	600 METERS 150 mm HOSE FOR UNIT 4
	75 METERS 150 mm HOSE FOR EACH CRANE BOOM OR CONCRETE PUMPING RIG ARRANGEMENT

BECHTEL POWER CORPORATION FREDERICK, MARYLAND		
FUKUSHIMA -1 UNITS 1-4		
TEMPORARY COOLING SYSTEM FOR SPENT FUEL POOL		
DATE	00001	REV.
3/18/2011		0

From: [Hayden, Elizabeth](#)
To: [Shannon, Valerie](#)
Subject: foiae-mail doc.docx
Date: Friday, March 25, 2011 10:44:00 AM
Attachments: [foiae-mail doc.docx](#)

Here you go

Am/69

To: HQ and Field

We have received three FOIA requests from the Associated Press asking for all records regarding the Japan event between March 11-16.. The 1st request (FOIA-2011-0120) asks for communication

between NRC and government counterparts in Japan; the 2nd request (FOIA-2011-0118) asks for all communications between NRC employees to and from DOE, to and from GE-Energy and to and from Hitachi-GE Nuclear Energy. We assume OPA has no communications that fall within these two requests and have closed them out. If you DO have any records that apply, please notify me immediately along with a hard copy of the communication/email.

The third request (FOIA-2011-0119) asks for communications within the NRC.

Communications include e-mails, faxes and written correspondence and covers March 11-16.

Communications that are administrative or operational in nature (e.g. OPA staffing needs, assigned shifts, etc) are not included.

Please print out all appropriate e-mails (inbox, sent, delete) and indicate those that are NOT releasable, thereby making the remainder releasable by default. Identify the number of exemption for not releasing the record using the exemptions that are explained in the attachment. For Exemption 6, if there are any cell phone numbers, bracket this information and mark with Ex.# 6. Blackberry numbers are releasable. Provide a hard copy of marked e-mails to me. If a string of e-mails is more than one page, please staple them as one package. We understand everyone is very busy and ask that you do this when you have time. Let me know if

you have any questions.

If the regional PAO's are responding through their FOIA person in the region to these requests,

please let me know.

Thank You,

Val

From: Shannon, Valerie
To: Chandrathil, Prema; Dricks, Victor; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Screnci, Diane; Sheehan, Neil; Uselding, Lara; Akstulewicz, Brenda; Brenner, Eliot; Burnell, Scott; Harrington, Holly; Hayden, Elizabeth; Couret, Ivonne; Janbergs, Holly; McIntyre, David
Subject: FOIA Requestt
Date: Friday, March 25, 2011 12:13:57 PM
Attachments: FOIAexemption.doc.pdf

We have received three FOIA requests from the Associated Press asking for all records regarding the Japan event between March 11-16. The 1st request (FOIA-2011-0120) asks for communication between NRC and government counterparts in Japan; the 2nd request (FOIA-2011-0118) asks for all communications between NRC employees to and from DOE, to and from GE-Energy and to and from Hitachi-GE Nuclear Energy. We assume OPA has no communications that fall within these two requests and have closed them out. If you DO have any records that apply, please notify me immediately along with a hard copy of the communication/email.

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Please print out all appropriate e-mails (inbox, sent, delete) and indicate those that are NOT releasable, thereby making the remainder releasable by default. Identify the number of exemption for not releasing the record using the exemptions that are explained in the attachment. For Exemption 6, if there are any cell phone numbers, bracket this information and mark with Ex.# 6. Blackberry numbers are releasable. Provide a hard copy of marked e-mails to me. If a string of e-mails is more than one page, please staple them as one package. We understand everyone is very busy and ask that you do this when you have time. Let me know if you have any questions.

If the regional PAO's are responding through their FOIA person in the region to these requests, please let me know.

Thank You,
Val

AMF 76

From: Hayden, Elizabeth
To: Alexion, Thomas
Subject: RE: THE RIS HAS BEEN TURNED OFF BY NRR UPPER MANAGEMENT IN CONSULTATION WITH THE EDO
Date: Friday, March 25, 2011 11:06:00 AM

thanks

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: Alexion, Thomas
Sent: Friday, March 25, 2011 11:04 AM
To: Hayden, Elizabeth
Cc: Mensah, Tanya; Beaulieu, David
Subject: FW: THE RIS HAS BEEN TURNED OFF BY NRR UPPER MANAGEMENT IN CONSULTATION WITH THE EDO

Beth,

I inadvertently left your name off the "To" list in the e-mail below.

Tom

From: Alexion, Thomas
Sent: Friday, March 25, 2011 10:41 AM
To: McIntosh, Angela; Doolittle, Elizabeth; Tabatabai, Omid; Hilton, Nick; Donnell, Tremaine; QTE Resource; Burnell, Scott; OGCMailCenter Resource; Shoop, Undine; Pedersen, Roger; Conatser, Richard; Sullivan, Frederick; Hill, Leslie
Cc: McGinty, Tim; Blount, Tom; Quay, Theodore; Rosenberg, Stacey; Mensah, Tanya; Beaulieu, David; Hawes, Cathy; Banic, Merrilee; Russell, Andrea
Subject: THE RIS HAS BEEN TURNED OFF BY NRR UPPER MANAGEMENT IN CONSULTATION WITH THE EDO

I was just informed that the proposed RIS regarding "Request for Licensee Radioactivity Measurements Attributed to Japanese Nuclear Power Plants Following Earthquake" has been **turned off** by upper NRR management in consultation with the EDO. However, it is advised that you keep any work that you had done related to this effort and not destroy it.

Thank you all for your quick acknowledgement and support on this proposed effort.

Am/71

From: Anderson, Brian
To: Harrington, Holly; Hayden, Elizabeth; Burnell, Scott
Subject: RE: UPDATED GI-199 talking points, Q&A
Date: Friday, March 25, 2011 9:08:05 AM

It's in ADAMS and available through the public website search portal.

<http://pbadupws.nrc.gov/docs/ML1002/ML100270582.html>

Results of Safety/Risk Assessment of Generic Issue 199, "Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States on Existing Plants"

Accession Number: ML100270582

Date Released: Tuesday, September 7, 2010

From: Harrington, Holly
Sent: Friday, March 25, 2011 8:56 AM
To: Anderson, Brian; Hayden, Elizabeth; Burnell, Scott
Subject: RE: UPDATED GI-199 talking points, Q&A

Thank you so much, Brian. I'm putting these into WebEOC and distributing them in OPA. I do have one question:

- The NRC's GI-199 safety risk assessment was completed in August 2010. It is publically available. Where?

From: Anderson, Brian
Sent: Friday, March 25, 2011 8:38 AM
To: Hayden, Elizabeth; Burnell, Scott; Harrington, Holly
Subject: UPDATED GI-199 talking points, Q&A

I added a new question (#6) to discuss the Temporary Instruction that was issued on Wednesday.

Please let me know if anything else is needed,
Brian

GI-199:

Talking Points

- The NRC's GI-199 safety risk assessment was completed in August 2010. It is publically available.
- The purpose of the GI-199 safety risk assessment was to perform a conservative, screening-level assessment to determine whether additional seismic safety review was needed for nuclear plants in the Central and Eastern United States (CEUS).

AM/72

- Updates to seismic data and models indicate increased seismic hazard estimates for some operating nuclear power plant sites in CEUS.
- The results of this assessment are not final estimates of plant-specific seismic risk.
- The NRC does not rank plants by seismic risk.
- The NRC continues to conclude that all plants have adequate seismic safety margin and continue to operate safely.

Q&A

1. What is GI-199?

Generic Issue 199 investigates the safety implications of updated earthquake-related data and models. These updated data and models suggest that the probability for earthquake ground shaking above the seismic design basis for some nuclear power plants in the Central and Eastern United States (CEUS) is still low, but larger than previous estimates.

2. Are the NRC reviews/analyses based on 2004 seismic data from USGS? Is there other updated earthquake information and modeling?

In 2004, preliminary results from United States Geological Survey (USGS) work indicated an increase in the probability of exceeding the Safe Shutdown Earthquake (SSE) for 29 nuclear power sites in the CEUS. The probability increases identified by USGS were primarily due to recent developments in the modeling of earthquake ground motion in the CEUS. USGS published updated data in 2008, which is what was used in the NRC's GI-199 safety risk assessment.

3. The NRC report talks about "screening reviews." What does that mean?

In December 2007, NRC completed a limited scope screening analysis, which is used by the NRC staff to decide whether an issue requires additional review. The screening compared the new seismic data with earlier seismic evaluations conducted by the NRC staff. The limited scope screening analysis concluded that seismic designs of plants in the CEUS continue to provide adequate safety margins. However, because the NRC recognized that this new seismic data could reduce available safety margins, the NRC staff conducted further analysis by performing NRC's GI-199 safety risk assessment.

4. Does the GI-199 study examine all nuclear power plants?

The GI-199 safety risk assessment is limited to all plants in the CEUS. Although plants at the Columbia, Diablo Canyon, Palo Verde, and San Onofre sites are not included in the GI-199 safety risk assessment, the NRC Information Notice on GI-199 is addressed to all operating power plants in the U.S. (as well as all independent spent fuel storage installation licensees). The NRC will also consider inclusion of operating reactors in the Western U.S. in its future generic communication information requests.

5. Does the GI-199 study consider spent fuel pools?

Spent fuel pools (SFPs) were not specifically evaluated as part of GI-199 safety risk assessment. However, based on their design characteristics, the NRC concludes that SFPs remain safe. SFPs are constructed of reinforced concrete, several feet thick, with a stainless steel liner to prevent leakage and maintain water quality. SFPs are inherently structurally-rugged and are designed to the same seismic requirements as the nuclear plant.

6. Is the NRC performing any inspections for GI-199?

The NRC is not currently performing inspections that are directly related to GI-199. However, on March 23, 2011, the NRC directed its inspectors to assess the actions taken by nuclear plant licensees in response to events at the Fukushima Daiichi nuclear station in Japan. NRC inspectors were given direction in the form of a Temporary Instruction (TI), which is one of the processes that NRC inspectors use to perform inspections following specific events. Using TI 2515/183, NRC inspectors will verify that important equipment and materials are adequate and properly staged, tested, and maintained in order to respond to a severe earthquake, flooding event, or loss of all electrical power. This inspection is an additional NRC activity. It does not replace any of the routine reviews that NRC inspectors perform daily at every nuclear power plant. Inspection activities for TI 2515/183 are expected to be completed by April 29, 2011. The results will be issued in a publicly available inspection report by May 13, 2011.

7. What happens next with GI-199?

The NRC is developing a Generic Letter (GL) to request information from all nuclear plants in the CEUS, which is a total of 96 operating reactors. The GL is scheduled to be issued for public comment in the late spring 2011. In addition its internal review processes, the NRC will also present the GL to the Advisory Committee on Reactor Safeguards (ACRS) both before and after the public comment period. The GL should be issued by end of 2011, near the time when new seismic models become available. These new seismic models are being developed by NRC, DOE, and EPRI. In addition the USGS will review the model. Information requested in the GL will likely require 3 to 6 months for nuclear plant licensees to prepare. NRC's review will be on-going as information is collected. Based on NRC's review of that information, a determination will be made regarding required changes at nuclear plants.

8. What if the GI-199 is wrong and an unexpected earthquake happens?

Following the events of September 11, 2001, NRC required all nuclear plant licensees to take additional steps to protect public health and safety in the event of a large fire or explosion. If needed, these additional steps could also be used during natural phenomena such as earthquakes, tornadoes, floods, and tsunamis. In general, these additional steps are plans, procedures, and pre-staged equipment whose intent is to minimize the effects of adverse events. In accordance with NRC regulations, all nuclear power plants are

required to maintain or restore cooling for the reactor core, containment building, and spent fuel pool under the circumstances associated with a large fire or explosion. These requirements include using existing or readily available equipment and personnel, having strategies for firefighting, operations to minimize fuel damage, and actions to minimize radiological release to the environment.

From: Sheehan, Neil
To: Burnell, Scott; Screnci, Diane; Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; McIntyre, David; Couret, Ivonne; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: RE: Number of plants to be reviewed as part of seismic study
Date: Friday, March 25, 2011 9:06:21 AM

I would hope so. There seems to be a disconnect here and it's resulting in different PAOs providing different information.

From: Burnell, Scott
Sent: Friday, March 25, 2011 9:05 AM
To: Sheehan, Neil; Screnci, Diane; Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; McIntyre, David; Couret, Ivonne; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: RE: Number of plants to be reviewed as part of seismic study

No, no new decisions post-quake. We'll be most interested in the 27 plants' responses, but we expect every CEUS plant to respond to the GL. The Q&A should explain some of this.

From: Sheehan, Neil
Sent: Friday, March 25, 2011 9:03 AM
To: Burnell, Scott; Screnci, Diane; Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; McIntyre, David; Couret, Ivonne; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: RE: Number of plants to be reviewed as part of seismic study

I understand the review looked at all plants. We were told very clearly last September the number to receive more focused evaluation has been narrowed to 27. When did that change? Has a decision been made to now broaden out to all of the plants once again because of events in Japan?

From: Burnell, Scott
Sent: Friday, March 25, 2011 9:02 AM
To: Screnci, Diane; Sheehan, Neil; Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; McIntyre, David; Couret, Ivonne; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: RE: Number of plants to be reviewed as part of seismic study

Incomplete information, perhaps... The GI-199 effort has always included all CEUS plants.

From: Screnci, Diane
Sent: Friday, March 25, 2011 9:01 AM
To: Burnell, Scott; Sheehan, Neil; Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; McIntyre, David; Couret, Ivonne; Hannah, Roger; Ledford, Joey;

AM/73

Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: RE: Number of plants to be reviewed as part of seismic study

Is that a change because of the earthquake in Japan... or have we been providing inaccurate information for two weeks?

DIANE SCRENCI

SR. PUBLIC AFFAIRS OFFICER

USNRC, RI

610/337-5330

From: Burnell, Scott
Sent: Friday, March 25, 2011 9:00 AM
To: Sheehan, Neil; Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; McIntyre, David; Couret, Ivonne; Screnci, Diane; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: RE: Number of plants to be reviewed as part of seismic study

We've got GI-199 Q&A ready for distribution and that should help, but the short version is that every CEUS plant will get the GL and perform updated analysis, it's the 27 we'll be particularly interested in.

From: Sheehan, Neil
Sent: Friday, March 25, 2011 8:59 AM
To: Hayden, Elizabeth
Cc: Brenner, Eliot; Harrington, Holly; Burnell, Scott; McIntyre, David; Couret, Ivonne; Screnci, Diane; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: Number of plants to be reviewed as part of seismic study

Beth,

I see you're quoted in the Greenwire story as saying we may now look at seismic risk for all of the U.S. reactors:

<http://www.eenews.net/Greenwire/print/2011/03/24/4> . We were told last September that the number of reactors making the cut for continued seismic evaluation was 27. Has that now changed? I'm confused.

Neil

From: Royer, Deanna
To: Hayden, Elizabeth
Subject: Phone Message
Date: Friday, March 25, 2011 8:21:48 AM

Michelle Allen
Bechtel
301-228-8946

She would like you to call her.

Deanna Royer
Contract Secretary
Division of New Reactor Licensing
(301) 415-7158
Deanna.Royer@nrc.gov

Am/74

From: OST02 HOC
To: Abrams, Charlotte; Abu-Eid, Bobby; Adams, John; Afshar-Tous, Mugeh; Ahn, Hosung; Alemu, Bezakulu; Algama, Don; Alter, Peter; Anderson, Brian; Anderson, James; Arndt, Steven; Arribas-Colon, Maria; Ashkeboussi, Nima; Athey, George; Baker, Stephen; Ballam, Nick; Barnhurst, Daniel; Barr, Cynthia; Barss, Dan; Bazian, Samuel; Bensl, Michelle; Bergman, Thomas; Berrv, Rollie; Bhachu, Ujagar; Bloom, Steven; Blount, Tom; Boger, Bruce; Bonnette, Cassandra; Borchardt, Bill; Bowers, Anthony; Bowman, Gregory; Boyce, Tom (RES); Brandon, Lou; Brandt, Philip; Brenner, Eliot; Brock, Kathryn; Brown, Cris; Brown, David; Brown, Eva; Brown, Frederick; Brown, Michael; Bukharin, Oleg; Burnell, Scott; Bush-Goddard, Stephanie; Campbell, Stephen; Camper, Larry; Carpenter, Cynthia; Carter, Mary; Case, Michael; Casto, Greg; Cecere, Bethany; Cervera, Margaret; Chazell, Russell; Chen, Yen-Ju; Cheok, Michael; Chokshi, Nilesh; Chowdhury, Prosanta; Chung, Donald; Circle, Jeff; Clement, Richard; Clinton, Rebecca; Coggins, Angela; Collins, Frank; Cool, Donald; Correia, Richard; Corson, James; Costa, Arlon; Couret, Ivonne; Craffey, Ryan; Crutchley, Mary Glenn; Cruz, Zahira; Cuadrado, Leira; Dacus, Eugene; DeCicco, Joseph; Decker, David; Dembek, Stephen; Devlin, Stephanie; Dimmick, Lisa; Doane, Margaret; Dorman, Dan; Dorsey, Cynthia; Dozier, Jerry; Drake, Margaret; Drogitis, Spiros; Dube, Donald; Dudes, Laura; Eads, Johnny; Emche, Danielle; English, Lance; Erlanger, Craig; Esmail, Hossein; Figueroa, Roberto; Fiske, Jonathan; Flanders, Scott; Flannery, Cindy; Floyd, Daphene; Foggie, Kirk; Foster, Jack; Fragoyannis, Nancy; Franovich, Rani; Frazier, Alan; Freshman, Steve; Fuller, Edward; Galletta, Thomas; Gambone, Kimberly; Gardocki, Stanley; Gartman, Michael; Gibson, Kathy; Giltter, Joseph; Gilmer, James; Glenn, Nichole; Gordon, Dennis; Gott, William; Grant, Jeffery; Greenwood, Carol; Greenwood, Carol; Grimes, Kelly; Grobe, Jack; Gross, Allen; Gulla, Gerald; Hale, Jerry; Hardesty, Duane; Hardin, Kimberly; Hardin, Leroy; Harrington, Holly; Harris, Tim; Harrison, Donnie; Hart, Ken; Hart, Michelle; Harvey, Brad; Hasselberg, Rick; Hayden, Elizabeth; Helton, Donald; Henderson, Karen; Hiland, Patrick; Holahan, Patricia; Holahan, Vincent; Holian, Brian; HOO Hoc; Horn, Brian; Howard, Tabitha; Huffert, Anthony; Hurd, Sapna; Huyck, Doug; Imboden, Andy; Isom, James; Jackson, Karen; Jacobson, Jeffrey; Jervay, Richard; Jessie, Janelle; Johnson, Michael; Jolicoeur, John; Jones, Andrea; Jones, Cynthia; Jones, Henry; Kahler, Carolyn; Kammerer, Annie; Karas, Rebecca; Kauffman, John; Khan, Omar; Kolb, Timothy; Kotzalas, Margie; Kowalczyk, Jeffrey; Kratchman, Jessica; Kugler, Andrew; Lamb, Christopher; Lane, John; Larson, Emily; Laur, Steven; LaVie, Steve; Lewis, Robert; Li, Yong; Lichatz, Taylor; Lising, Jason; Lombard, Mark; Lubinski, John; Lui, Christiana; Lukes, Kim; Lynch, Jeffery; Ma, John; Mamish, Nader; Manahan, Michelle; Marksberry, Don; Marshall, Jane; Masao, Nagai; Maupin, Cardelia; Mayros, Lauren; Mazaika, Michael; McConnell, Keith; McCoppin, Michael; McDermott, Brian; McGinty, Tim; McGovern, Denise; McIntyre, David; McMurtray, Anthony; Merritt, Christina; Meyer, Karen; Miller, Charles; Miller, Chris; Milligan, Patricia; Miranda, Samuel; Mohseni, Aby; Moore, Scott; Morlang, Gary; Morris, Scott; Mroz (Sahm), Sara; Munson, Clifford; Murray, Charles; Nerret, Amanda; Nguyen, Caroline; Norris, Michael; Norton, Charles; Opara, Stella; Ordaz, Vonna; Owens, Janice; Padovan, Mark; Parillo, John; Patel, Jay; Patel, Pravin; Patrick, Mark; Perin, Vanice; Pope, Tia; Powell, Amy; Purdy, Gary; Quinlan, Kevin; Raddatz, Michael; Ragland, Robert; Ralph, Melissa; Ramsey, Jack; Reed, Elizabeth; Reed, Sara; Reed, Wendy; Reeves, Rosemary; Reis, Terrence; Resner, Mark; Riley (OCA), Timothy; Riner, Kelly; Rini, Brett; Robinson, Edward; Rodriguez-Luccioni, Hector; Roggenbrodt, William; Roapon, Kimberly; Rosales-Cooper, Cindy; Rosenberg, Stacey; Ross-Lee, MaryJane; Roundtree, Amy; Ruland, William; Russell, Tonya; Ryan, Michelle; Salay, Michael; Salter, Susan; Salus, Amy; Sanfilippo, Nathan; Santos, Daniel; Scarbrough, Thomas; Schaperow, Jason; Schmidt, Duane; Schmidt, Rebecca; Schoenebeck, Greg; Schrader, Eric; Schwartzman, Jennifer; Seber, Dogan; See, Kenneth; Shane, Raeann; Shea, James; Shepherd, Jill; Sheron, Brian; Skarda, Raymond; Skeen, David; Sloan, Scott; Smioldo, Elizabeth; Smith, Brooke; Smith, Stacy; Smith, Theodore; Stahl, Eric; Stang, Annette; Stark, Johnathan; Steger (Tucci), Christine; Stieve, Alice; Stone, Rebecca; Stransky, Robert; Sturz, Fritz; Sullivan, Randy; Summers, Robert; Sun, Casper; Tappert, John; Tegeler, Bret; Temple, Jeffrey; Thaggard, Mark; Thomas, Eric; Thorp, John; Tiruneh, Nebiyu; Tobin, Jennifer; Trefethen, Jean; Tschiltz, Michael; Turtill, Richard; Uhle, Jennifer; Valencia, Sandra; Vaughn, James; Vick, Lawrence; Virgilio, Martin; Virgilio, Rosetta; Ward, Leonard; Ward, William; Wastler, Sandra; Watson, Bruce; Webber, Robert; Weber, Michael; White, Bernard; Wiggins, Jim; Williams, Donna; Williams, Joseph; Williamson, Linda; Willis, Dori; Wimbush, Andrea; Wittick, Brian; Wray, John; Wright, Lisa (Gibney); Wright, Ned; Wunder, George; Young, Francis; Zimmerman, Jacob; Zimmerman, Roy
Subject: Japanese Earthquake ERO Staffing March 20-26, 2011 (Pay Period 7, Week 2)
Date: Friday, March 25, 2011 12:31:31 PM
Attachments: Japan Earthquake - ERO Staffing Schedule - March 20-26.pdf

Good Afternoon,

Attached is the OPS Center revised watchbill for March 20-26. The watchbill for the week of March 27-April 2 will be sent by Saturday, March 27.

If you need to change the schedule, please send an email to OST02 HOC and your Teams Coordinator.

EST Admin Support

AM/75

NRC Operations Center
eMail: OST02.HOC@nrc.gov
301-816-5100 x5600

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Position	Date	Time	Staff
Executive Team			
ET Director			
Sat-Sun	3/19-3/20	11pm - 7am	Mike Johnson
Sun	20-Mar	7am - 3pm	Jim Wiggins
Sun	20-Mar	3pm-11pm	Brian Sheron
Sun-Mon	3/20-3/21	11pm - 7am	Mike Johnson
Mon	21-Mar	7am - 3pm	Mike Weber
Mon	21-Mar	3pm-11pm	Jim Wiggins
Mon-Tues	3/21-3/22	11pm - 7am	Mike Johnson
Tues	22-Mar	7am - 3pm	Mike Weber
Tues	22-Mar	3pm-11pm	Jim Wiggins
Tues-Wed	3/22-3/23	11pm - 7am	Bruce Boger
Wed	23-Mar	7am - 3pm	Mike Weber
Wed	23-Mar	3pm-11pm	Roy Zimmerman
Wed-Thur	3/23-3/24	11pm - 7am	Bruce Boger
Thur	24-Mar	7am - 3pm	Mike Weber
Thur	24-Mar	3pm-11pm	Roy Zimmerman
Thur-Fri	3/24-3/25	11pm - 7am	Jennifer Uhle
Fri	25-Mar	7am - 3pm	Jim Dyer
Fri	25-Mar	3pm-11pm	Roy Zimmerman
Fri-Sat	3/25-3/26	11pm-7am	Jennifer Uhle
Sat	26-Mar	7am - 3pm	Jim Dyer
Sat	26-Mar	3pm-11pm	Brian Sheron
Sat-Sun	3/26-3/27	11pm - 7am	Jennifer Uhle
ET Response Advisor			
Sat-Sun	3/19-3/20	11pm - 7am	Scott Morris
Sun	20-Mar	7am - 3pm	Chris Miller
Sun	20-Mar	3pm-11pm	Mary Jane (MJ) Ross-Lee
Sun-Mon	3/20-3/21	11pm - 7am	Scott Morris
Mon	21-Mar	7am - 3pm	Brian McDermott
Mon	21-Mar	3pm-11pm	Chris Miller
Mon-Tues	3/21-3/22	11pm - 7am	Scott Morris
Tues	22-Mar	7am - 3pm	Mary Jane (MJ) Ross-Lee
Tues	22-Mar	3pm-11pm	Chris Miller
Tues-Wed	3/22-3/23	11pm - 7am	Tim McGinty
Wed	23-Mar	7am - 3pm	Brian McDermott
Wed	23-Mar	3pm-11pm	Joe Giitter
Wed-Thur	3/23-3/24	11pm - 7am	Tim McGinty
Thur	24-Mar	7am - 3pm	Mary Jane (MJ) Ross-Lee
Thur	24-Mar	3pm-11pm	Joe Giitter
Thur-Fri	3/24-3/25	11pm - 7am	Tim McGinty
Fri	25-Mar	7am - 3pm	Mary Jane (MJ) Ross-Lee
Fri	25-Mar	3pm-11pm	Joe Giitter
Fri-Sat	3/25-3/26	11pm-7am	Tim McGinty
Sat	26-Mar	7am - 3pm	Mary Jane (MJ) Ross-Lee
Sat	26-Mar	3pm-11pm	Joe Giitter
Sat-Sun	3/26-3/27	11pm - 7am	Chris Miller
ET Rx Prot Measures & State Coordinator			
Sat-Sun	3/19-3/20	11pm - 7am	Rob Lewis

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Sun	20-Mar	7am - 3pm	Vonna Ordaz
Sun	20-Mar	3pm-11pm	Larry Camper
Sun-Mon	3/20-3/21	11pm - 7am	Cynthia Carpenter
Mon	21-Mar	7am - 3pm	Charlie Miller
Mon	21-Mar	3pm-11pm	Larry Camper
Mon-Tues	3/21-3/22	11pm - 7am	Rob Lewis
Tues	22-Mar	7am - 3pm	Charlie Miller
Tues	22-Mar	3pm-11pm	Patricia Holahan
Tues-Wed	3/22-3/23	11pm - 7am	Cynthia Carpenter
Wed	23-Mar	7am - 3pm	Charlie Miller
Wed	23-Mar	3pm-11pm	Patricia Holahan
Wed-Thur	3/23-3/24	11pm - 7am	N/A
Thur	24-Mar	7am - 3pm	Larry Camper
Thur	24-Mar	3pm-11pm	Cynthia Carpenter
Thur-Fri	3/24-3/25	11pm - 7am	N/A
Fri	25-Mar	7am - 3pm	Cynthia Carpenter
Fri	25-Mar	3pm-11pm	Patricia Holahan
Fri-Sat	3/25-3/26	11pm-7am	N/A
Sat	26-Mar	7am - 3pm	N/A
Sat	26-Mar	3pm-11pm	N/A
Sat-Sun	3/26-3/27	11pm - 7am	N/A
Executive Briefing Team			
EBT Admin. Assistant			
Sat-Sun	3/19-3/20	11pm - 9am	Sapna Hurd
Sun	20-Mar	9am - 7pm	Annette Stang
Sun-Mon	3/20-3/21	7pm-7am	Carolyn Kahler
Mon	21-Mar	7am - 3pm	A. Stang (7-11) / Sapna Hurd (11-3)
Mon	21-Mar	3pm-11pm	Tia Pope
Mon-Tues	3/21-3/22	11pm - 7am	Christina Merritt
Tues	22-Mar	7am - 3pm	Carolyn Kahler/Sapna Hurd
Tues	22-Mar	3pm-11pm	Jon Fiske
Tues-Wed	3/22-3/23	11pm - 7am	Tia Pope
Wed	23-Mar	7am - 3pm	Jon Fiske
Wed	23-Mar	3pm-11pm	Annette Stang
Wed-Thur	3/23-3/24	11pm - 7am	Christina Merritt
Thur	24-Mar	7am - 3pm	Carolyn Kahler/Sapna Hurd
Thur	24-Mar	3pm-11pm	Jonathan Fiske
Thur-Fri	3/24-3/25	11pm - 7am	Tia Pope
Fri	25-Mar	7am - 3pm	Jon Fiske
Fri	25-Mar	3pm-11pm	Sapna Hurd
Fri-Sat	3/25-3/26	11pm-7am	Carolyn Kahler
Sat	26-Mar	7am - 3pm	Kelly Riner
Sat	26-Mar	3pm-11pm	Louise Lovell
Sat-Sun	3/26-3/27	11pm - 7am	Jonathan Fiske
EBT Coordinator			
Sat-Sun	3/19-3/20	11pm - 7am	Jim Andersen
Sun	20-Mar	7am - 3pm	Yen-Ju Chen
Sun	20-Mar	3pm-11pm	Caroline Nguyen
Sun-Mon	3/20-3/21	11pm - 7am	Jim Andersen
Mon	21-Mar	7am - 3pm	Yen-Ju Chen

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Mon	21-Mar	3pm-11pm	Sara Mroz
Mon-Tues	3/21-3/22	11pm - 7am	Jim Andersen
Tues	22-Mar	7am - 3pm	Caroline Nguyen
Tues	22-Mar	3pm-11pm	Sara Mroz
Tues-Wed	3/22-3/23	11pm - 7am	Jim Andersen
Wed	23-Mar	7am - 3pm	Yen-Ju Chen
Wed	23-Mar	3pm-11pm	Sara Mroz
Wed-Thur	3/23-3/24	11pm - 7am	Jim Andersen
Thur	24-Mar	7am - 3pm	Yen-Ju Chen
Thur	24-Mar	3pm-11pm	Sara Mroz
Thur-Fri	3/24-3/25	11pm - 7am	Jim Andersen
Fri	25-Mar	7am - 3pm	Caroline Nguyen
Fri	25-Mar	3pm-11pm	Sara Mroz
Fri-Sat	3/25-3/26	11pm-7am	Jim Andersen
Sat	26-Mar	7am - 3pm	Yen-Ju Chen/Tonya Russell
Sat	26-Mar	3pm-11pm	Sara Mroz
Sat-Sun	3/26-3/27	11pm - 7am	Jim Anderson

Executive Support Team**EST Status Officer**

Sat-Sun	3/19-3/20	11pm - 7am	Doug Huyck
Sun	20-Mar	7am - 3pm	Craig Erlanger
Sun	20-Mar	3pm-11pm	John Jolicoeur
Sun-Mon	3/20-3/21	11pm - 7am	Doug Huyck
Mon	21-Mar	7am - 3pm	Jane Marshall
Mon	21-Mar	3pm-11pm	Bill Gott
Mon-Tues	3/21-3/22	11pm - 7am	Jeff Grant
Tues	22-Mar	7am - 3pm	John Jolicoeur
Tues	22-Mar	3pm-11pm	Bill Gott
Tues-Wed	3/22-3/23	11pm - 7am	Jeff Grant
Wed	23-Mar	7am - 3pm	Sally Billings/Jane Marshall
Wed	23-Mar	3pm-11pm	Bill Gott
Wed-Thur	3/23-3/24	11pm - 7am	Jeff Grant
Thur	24-Mar	7am - 3pm	Jane Marshall
Thur	24-Mar	3pm-11pm	Bill Gott
Thur-Fri	3/24-3/25	11pm - 7am	Jeff Grant
Fri	25-Mar	7am - 3pm	Jane Marshall
Fri	25-Mar	3pm-11pm	Bill Gott
Fri-Sat	3/25-3/26	11pm-7am	Jeff Grant
Sat	26-Mar	7am - 3pm	Jane Marshall ?
Sat	26-Mar	3pm-11pm	Bill Gott
Sat-Sun	3/26-3/27	11pm - 7am	Jeff Grant

EST Actions Officer

Sat-Sun	3/19-3/20	11pm - 7am	Jonathan Fiske
Sun	20-Mar	7am - 3pm	Melissa Ralph
Sun	20-Mar	3pm-11pm	Jonathan Fiske
Sun-Mon	3/20-3/21	11pm - 7am	Dori Votolato-Willis
Mon	21-Mar	7am - 3pm	Melissa Ralph
Mon	21-Mar	3pm-11pm	Amanda Nerret
Mon-Tues	3/21-3/22	11pm - 7am	Kelly Grimes
Tues	22-Mar	7am - 3pm	Melissa Ralph

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Tues	22-Mar	3pm-11pm	Dori Votolato-Willis
Tues-Wed	3/22-3/23	11pm - 7am	Kelly Grimes
Wed	23-Mar	7am - 3pm	Melissa Ralph
Wed	23-Mar	3pm-11pm	Dori Votolato-Willis
Wed-Thur	3/23-3/24	11pm - 7am	Kelly Grimes
Thur	24-Mar	7am - 3pm	Wendy Reed
Thur	24-Mar	3pm-11pm	Dori Votolato-Willis
Thur-Fri	3/24-3/25	11pm - 7am	N/A
Fri	25-Mar	7am - 3pm	Amanda Nerret
Fri	25-Mar	3pm-11pm	Melissa Ralph
Fri-Sat	3/25-3/26	11pm-7am	N/A
Sat	26-Mar	7am - 3pm	James Corson
Sat	26-Mar	3pm-11pm	Don Algama
Sat-Sun	3/26-3/27	11pm - 7am	N/A

EST Coordinator

Sat-Sun	3/19-3/20	11pm - 7am	Rebecca Stone
Sun	20-Mar	7am - 3pm	Clyde Ragland
Sun	20-Mar	3pm-11pm	Tony Bowers
Sun-Mon	3/20-3/21	11pm - 7am	Rebecca Stone
Mon	21-Mar	7am - 3pm	Tony McMurtray
Mon	21-Mar	3pm-11pm	Tony Bowers
Mon-Tues	3/21-3/22	11pm - 7am	Rebecca Stone
Tues	22-Mar	7am - 3pm	Tony McMurtray
Tues	22-Mar	3pm-11pm	Clyde Ragland
Tues-Wed	3/22-3/23	11pm - 7am	Rebecca Stone
Wed	23-Mar	7am - 3pm	Tony McMurtray
Wed	23-Mar	3pm-11pm	Clyde Ragland
Wed-Thur	3/23-3/24	11pm - 7am	Rebecca Stone
Thur	24-Mar	7am - 3pm	Tony McMurtray
Thur	24-Mar	3pm-11pm	Clyde Ragland
Thur-Fri	3/24-3/25	11pm - 7am	Steve Campbell
Fri	25-Mar	7am - 3pm	Taylor Lichatz
Fri	25-Mar	3pm-11pm	Tony McMurtray
Fri-Sat	3/25-3/26	11pm-7am	Steve Campbell
Sat	26-Mar	7am - 3pm	Tonya Russell
Sat	26-Mar	3pm-11pm	Tony McMurtray
Sat-Sun	3/26-3/27	11pm - 7am	Steve Campbell

EST Chronology Officer

Sat-Sun	3/19-3/20	11pm - 7am	Cynthia Dorsey
Sun	20-Mar	7am - 3pm	James Vaughn
Sun	20-Mar	3pm-11pm	Rebecca Karas
Sun-Mon	3/20-3/21	11pm - 7am	Mark Resner
Mon	21-Mar	7am - 3pm	Hector Rodriguez-Luccioni
Mon	21-Mar	3pm-11pm	Rebecca Karas
Mon-Tues	3/21-3/22	11pm - 7am	Thomas Scarbrough
Tues	22-Mar	7am - 3pm	Hector Rodriguez-Luccioni
Tues	22-Mar	3pm-11pm	Rebecca Karas
Tues-Wed	3/22-3/23	11pm - 7am	Thomas Scarbrough
Wed	23-Mar	7am - 3pm	James Vaughn
Wed	23-Mar	3pm-11pm	Rebecca Karas

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Wed-Thur	3/23-3/24	11pm - 7am	Nick Ballam
Thur	24-Mar	7am - 3pm	Hector Rodriguez-Luccioni
Thur	24-Mar	3pm-11pm	Rebecca Karas
Thur-Fri	3/24-3/25	11pm - 7am	Thomas Scarbrough
Fri	25-Mar	7am - 3pm	Hector Rodriguez-Luccioni
Fri	25-Mar	3pm-11pm	Rebecca Karas
Fri-Sat	3/25-3/26	11pm-7am	Thomas Scarbrough
Sat	26-Mar	7am - 3pm	Nick Ballam
Sat	26-Mar	3pm-11pm	Rebecca Karas
Sat-Sun	3/26-3/27	11pm - 7am	Thomas Scarbrough
EST Response Ops Mgr			
Sat-Sun	3/19-3/20	11pm - 7am	Jean Trefethan
Sun	20-Mar	7am - 3pm	Karen Jackson
Sun	20-Mar	3pm-11pm	Roberto Figueroa
Sun-Mon	3/20-3/21	11pm - 7am	Jean Trefethan
Mon	21-Mar	7am - 3pm	Bob Stransky
Mon	21-Mar	3pm-11pm	Omar Khan
Mon-Tues	3/21-3/22	11pm - 7am	Cris Brown
Tues	22-Mar	7am - 3pm	Bob Stransky
Tues	22-Mar	3pm-11pm	Karen Jackson
Tues-Wed	3/22-3/23	11pm - 7am	Roberto Figueroa
Wed	23-Mar	7am - 3pm	Bob Stransky
Wed	23-Mar	3pm-11pm	Jean Trefethan
Wed-Thur	3/23-3/24	11pm - 7am	Cris Brown
Thur	24-Mar	7am - 3pm	Karen Jackson
Thur	24-Mar	3pm-11pm	Omar Khan
Thur-Fri	3/24-3/25	11pm - 7am	Roberto Figueroa
Fri	25-Mar	7am - 3pm	Jean Trefethan
Fri	25-Mar	3pm-11pm	Cris Brown
Fri-Sat	3/25-3/26	11pm-7am	Roberto Figueroa
Sat	26-Mar	7am - 3pm	Omar Khan
Sat	26-Mar	3pm-11pm	Cris Brown
Sat-Sun	3/26-3/27	11pm - 7am	Roberto Figueroa
EST Admin. Assistant			
Sat-Sun	3/19-3/20	11pm - 7am	Chris Lamb
Sun	20-Mar	7am - 3pm	Karen Meyer
Sun	20-Mar	3pm-11pm	Linda Williamson
Sun-Mon	3/20-3/21	11pm - 7am	Chris Lamb
Mon	21-Mar	7am - 3pm	Karen Meyer
Mon	21-Mar	3pm-11pm	Mary Glenn Crutchley
Mon-Tues	3/21-3/22	11pm - 7am	Andrea Wimbush
Tues	22-Mar	7am - 3pm	Cynthia Dorsey
Tues	22-Mar	3pm-11pm	Mary Glenn Crutchley
Tues-Wed	3/22-3/23	11pm - 7am	Michelle Manahan
Wed	23-Mar	7am - 3pm	Karen Meyer
Wed	23-Mar	3pm-11pm	Mary Glenn Crutchley
Wed-Thur	3/23-3/24	11pm - 7am	Andrea Wimbush
Thur	24-Mar	7am - 3pm	Cynthia Dorsey
Thur	24-Mar	3pm-11pm	Mary Glenn Crutchley
Thur-Fri	3/24-3/25	11pm - 7am	N/A

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Fri	25-Mar	7am - 3pm	Karen Meyer
Fri	25-Mar	3pm-11pm	Cynthia Dorsey
Fri-Sat	3/25-3/26	11pm-7am	N/A
Sat	26-Mar	7am - 3pm	Karen Meyer
Sat	26-Mar	3pm-11pm	Cynthia Dorsey
Sat-Sun	3/26-3/27	11pm - 7am	N/A

Liaison Team

LT Director			
Sat-Sun	3/19-3/20	11pm - 7am	John Adams
Sun	20-Mar	7am - 3pm	Tom Bergman
Sun	20-Mar	3pm-11pm	Bob Webber
Sun-Mon	3/20-3/21	11pm - 7am	John Adams
Mon	21-Mar	7am - 3pm	Tom Bergman
Mon	21-Mar	3pm-11pm	Bob Webber
Mon-Tues	3/21-3/22	11pm - 7am	John Adams
Tues	22-Mar	7am - 3pm	Tom Bergman
Tues	22-Mar	3pm-11pm	Bob Webber
Tues-Wed	3/22-3/23	11pm - 7am	John Adams
Wed	23-Mar	7am - 3pm	Michael Tschiltz
Wed	23-Mar	3pm-11pm	Rich Correia
Wed-Thur	3/23-3/24	11pm - 7am	Jake Zimmerman
Thur	24-Mar	7am - 3pm	Michael Tschiltz
Thur	24-Mar	3pm-11pm	Rich Correia
Thur-Fri	3/24-3/25	11pm - 7am	Jake Zimmerman
Fri	25-Mar	7am - 3pm	Michael Tschiltz
Fri	25-Mar	3pm-11pm	Rich Correia
Fri-Sat	3/25-3/26	11pm-7am	Jake Zimmerman
Sat	26-Mar	7am - 3pm	Michael Tschiltz
Sat	26-Mar	3pm-11pm	Rich Correia
Sat-Sun	3/26-3/27	11pm - 7am	Marissa Bailey

LT Coordinator			
Sat-Sun	3/19-3/20	11pm - 7am	Janelle Jessie
Sun	20-Mar	7am - 3pm	Jeff Temple
Sun	20-Mar	3pm-11pm	Nathan Sanfilippo
Sun-Mon	3/20-3/21	11pm - 7am	Milt Murray
Mon	21-Mar	7am - 3pm	Jeff Temple
Mon	21-Mar	3pm-11pm	Nathan Sanfilippo
Mon-Tues	3/21-3/22	11pm - 7am	Milt Murray
Tues	22-Mar	7am - 3pm	Rani Franovich
Tues	22-Mar	3pm-11pm	Nathan Sanfilippo
Tues-Wed	3/22-3/23	11pm - 7am	Milt Murray
Wed	23-Mar	7am - 3pm	Rani Franovich
Wed	23-Mar	3pm-11pm	Jeff Temple
Wed-Thur	3/23-3/24	11pm - 7am	Milt Murray
Thur	24-Mar	7am - 3pm	Rani Franovich
Thur	24-Mar	3pm-11pm	Jeff Temple
Thur-Fri	3/24-3/25	11pm - 7am	Milt Murray
Fri	25-Mar	7am - 3pm	Janelle Jessie
Fri	25-Mar	3pm-11pm	Rani Franovich
Fri-Sat	3/25-3/26	11pm-7am	Milt Murray

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Sat	26-Mar	7am - 3pm	Janelle Jessie
Sat	26-Mar	3pm-11pm	Rani Franovich
Sat-Sun	3/26-3/27	11pm - 7am	Milt Murray
LT State Liaison			
Sat-Sun	3/19-3/20	9pm-7am	Michelle Ryan/Rich Turtil (ON CALL ONLY)
Sun	20-Mar	7am-2pm	Michelle Ryan/Rich Turtil (ON CALL ONLY)
Sun	20-Mar	2pm-9pm	Michelle Ryan/Rich Turtil (ON CALL ONLY)
Sun-Mon	3/20-3/21	9pm-7am	Michelle Ryan/Rich Turtil (ON CALL ONLY)
Mon	21-Mar	7am-2pm	Flannery (Riveria-On Call)
Mon	21-Mar	2pm-9pm	Easson (Turtil-On Call)
Mon-Tue	3/21-3/22	9pm-7am	Michelle Ryan/Rich Turtil (ON CALL ONLY)
Tue	22-Mar	7am-2pm	Maupin
Tue	22-Mar	2pm-9pm	Easson/Michelle Ryan
Tue-Wed	3/22-3/23	9pm-7am	Alison Rivera/Amanda Noonan (ON CALL ONLY)
Wed	23-Mar	7am-2pm	Maupin
Wed	23-Mar	2pm-9pm	Alison Rivera
Wed-Thur	3/23-3/24	9pm-7am	Michelle Ryan/Turtil (ON CALL ONLY)
Thur	24-Mar	7am-2pm	Flannery
Thur	24-Mar	2pm-9pm	Amanda Noonan
Thur-Fri	3/24-3/25	9pm-7am	Rivera/Turtil (ON CALL ONLY)
Fri	25-Mar	7am-2pm	Kim Lukes
Fri	25-Mar	2pm-9pm	Michelle Ryan
Fri-Sat	3/25-3/26	9pm-7am	Alison Rivera/Amanda Noonan (ON CALL ONLY)
Sat	26-Mar	7am-2pm	Michelle Ryan/Amanda Noonan (ON CALL ONLY)
Sat	26-Mar	2pm-9pm	Michelle Ryan/Amanda Noonan (ON CALL ONLY)
Sat-Sun	3/26-3/27	9pm-7am	Michelle Rivera/Amanda Noonan (ON CALL ONLY)
LT Federal Liaison (2)			
Sun	20-Mar	7am - 3pm	Ned Wright
Sun	20-Mar	3pm-11pm	Jeff Temple
Sun-Mon	3/20-3/21	11pm - 7am	Scott Sloan
Sun-Mon	3/20-3/21	11pm - 7am	Lisa Wright
Mon	21-Mar	7am - 3pm	Beth Reed/Ted Smith
Mon	21-Mar	3pm-11pm	Ned Wright
Mon-Tues	3/21-3/22	11pm - 7am	Lisa Wright
Tues	22-Mar	7am - 3pm	Beth Reed/Ted Smith
Tues	22-Mar	3pm-11pm	Ned Wright
Tues-Wed	3/22-3/23	11pm - 7am	Lisa Wright
Wed	23-Mar	7am - 3pm	Jerry Hale/Ted Smith
Wed	23-Mar	3pm-11pm	Ned Wright
Wed-Thur	3/23-3/24	11pm - 7am	Lisa Wright
Thur	24-Mar	7am - 3pm	Ted Smith/Bethany Cecere
Thur	24-Mar	3pm-11pm	Jerry Hale
Thur-Fri	3/24-3/25	11pm - 7am	Scott Sloan
Fri	25-Mar	7am - 3pm	Ted Smith/Bethany Cecere
Fri	25-Mar	3pm-11pm	Jason Lising
Fri-Sat	3/25-3/26	11pm-7am	Scott Sloan
Sat	26-Mar	7am - 3pm	Jason Lising/Lisa Gibney
Sat	26-Mar	3pm-11pm	Jeff Temple
Sat-Sun	3/26-3/27	11pm - 7am	Scott Sloan

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

LT Congressional Liaison (2)			
Sun	20-Mar	7am - 2pm	Rebecca Schmidt
	20-Mar	2pm-9pm	Reanne Shane
Mon	21-Mar	7am - 2pm	Spiros Droggitis
	21-Mar	2pm-9pm	Tim Riley
Tues	22-Mar	7am - 2pm	Tim Riley
	22-Mar	2pm-9pm	Spiros Droggitis
Wed	23-Mar	7am - 2pm	Gene Dacus
	23-Mar	2pm-9pm	Raeann Shane
Thur	24-Mar	7am - 2pm	Spiros Droggitis
	24-Mar	2pm-9pm	Raeann Shane
Fri	25-Mar	7am - 2pm	Gene Dacus
	25-Mar	2pm-9pm	Amy Powell
Sat	26-Mar	7am - 3pm	Amy Powell (ON CALL ONLY)
Sat	26-Mar	3pm-11pm	Amy Powell (ON CALL ONLY)
Sun	3/26-3/27	11pm - 7am	Amy Powell (ON CALL ONLY)
LT International Liaison (2)			
Sat-Sun	3/19-3/20	11pm - 7am	Elizabeth Smirolodo/Danielle Emche
Sun	20-Mar	7am - 3pm	Karen Henderson/Steve Baker
Sun	20-Mar	3pm-11pm	Eric Stahl/Nancy Fragoyanis
Sun-Mon	3/20-3/21	11pm - 7am	Elizabeth Smirolodo/Jenny Tobin
Mon	21-Mar	7am - 3pm	Jen Schwartzman/Charlotte Abrams/Nancy (12-3
Mon	21-Mar	3pm-11pm	Danielle Emche/Lauren Mayros
Mon-Tues	3/21-3/22	11pm - 7am	Eric Stahl/Mugeh Afshar-Tous
Tues	22-Mar	7am - 3pm	Jen Schwartzman/Charlotte Abrams/Nancy (12-3
Tues	22-Mar	3pm-11pm	Danielle Emche/Lauren Mayros
Tues-Wed	3/22-3/23	11pm - 7am	Eric Stahl/Mugeh
Wed	23-Mar	7am - 3pm	Jen Schwartzman/Charlotte Abrams/Nancy (12-3
Wed	23-Mar	3pm-11pm	Danielle Emche/Lauren Mayros
Wed-Thur	3/23-3/24	11pm - 7am	Eric Stahl/Mugeh
Thur	24-Mar	7am - 3pm	Steve Bloom/Lance English
Thur	24-Mar	3pm-11pm	Janice/Jenny Tobin
Thur-Fri	3/24-3/25	11pm - 7am	Andrea/Elizabeth Smirolodo
Fri	25-Mar	7am - 3pm	Steve Bloom/Lance English
Fri	25-Mar	3pm-11pm	Janice/Jenny Tobin
Fri-Sat	3/25-3/26	11pm-7am	Andrea/Elizabeth Smirolodo
Sat	26-Mar	7am - 3pm	Steve Bloom / Lance English
Sat	26-Mar	3pm-11pm	Janice Owens / Jenny Tobin
Sat-Sun	3/26-3/27	11pm - 7am	Cindy Rosales/ Elizabeth Smirolodo
Protective Measures Team			
PMTR Director			
Sat-Sun	3/19-3/20	11pm - 7am	Kathy Gibson
Sun	20-Mar	7am - 3pm	John Lubinski
Sun	20-Mar	3pm-11pm	Don Cool
Sun-Mon	3/20-3/21	11pm - 7am	Kathy Gibson
Mon	21-Mar	7am - 3pm	John Lubinski
Mon	21-Mar	3pm-11pm	Don Cool
Mon-Tues	3/21-3/22	11pm - 7am	John Tappert
Tues	22-Mar	7am - 3pm	John Lubinski
Tues	22-Mar	3pm-11pm	Don Cool

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Tues-Wed	3/22-3/23	11pm - 7am	John Tappert
Wed	23-Mar	7am - 3pm	Terry Reis
Wed	23-Mar	3pm-11pm	Cindy Jones
Wed-Thur	3/23-3/24	11pm - 7am	Randy Sullivan
Thur	24-Mar	7am - 3pm	Terry Reis
Thur	24-Mar	5pm-11pm	Cindy Jones
Thur-Fri	3/24-3/25	11pm - 7am	Randy Sullivan
Fri	25-Mar	7am - 3pm	Terry Reis
Fri	25-Mar	5pm-11pm	Cindy Jones
Fri-Sat	3/25-3/26	11pm-7am	Randy Sullivan
Sat	26-Mar	7am - 3pm	Terry Reis
Sat	26-Mar	3pm-11pm	Cindy Jones
Sat-Sun	3/26-3/27	11pm - 7am	Randy Sullivan

PMTR Coordinator

Sat-Sun	3/19-3/20	11pm - 7am	Lou Brandon
Sun	20-Mar	7am - 3pm	Nima Ashkeboussi
Sun	20-Mar	3pm-11pm	Jay Patel
Sun-Mon	3/20-3/21	11pm - 7am	Lou Brandon
Mon	21-Mar	7am - 3pm	Prosanta Chowdhury (8 am)
Mon	21-Mar	3pm-11pm	Jay Patel
Mon-Tues	3/21-3/22	11pm - 7am	Lou Brandon
Tues	22-Mar	7am - 3pm	Prosanta Chowdhury (8 am)
Tues	22-Mar	3pm-11pm	Nima Ashkeboussi
Tues-Wed	3/22-3/23	11pm - 7am	Mike Norris
Wed	23-Mar	7am - 3pm	John Wray
Wed	23-Mar	3pm-11pm	Nima Ashkeboussi
Wed-Thur	3/23-3/24	11pm - 7am	Mike Norris
Thur	24-Mar	7am - 3pm	John Wray
Thur	24-Mar	3pm-11pm	Jay Patel/Joe DeCicco
Thur-Fri	3/24-3/25	11pm - 7am	Mike Norris
Fri	25-Mar	7am - 3pm	Duane Hardesty/Joe DeCicco
Fri	25-Mar	3pm-11pm	Ryan Craffey
Fri-Sat	3/25-3/26	11pm-7am	Lou Brandon
Sat	26-Mar	7am - 3pm	Arlon Costa
Sat	26-Mar	3pm-11pm	Kimberly Hardin
Sat-Sun	3/26-3/27	11pm - 7am	Lou Brandon

PMTR Prot Actions Asst Dir

Sat-Sun	3/19-3/20	11pm - 7am	Greg Casto
Sun	20-Mar	7am - 3pm	Kathryn Brock
Sun	20-Mar	3pm-11pm	Tim Harris
Sun-Mon	3/20-3/21	11pm - 7am	Greg Casto (Jessica Kratchman - to shadow)
Mon	21-Mar	7am - 3pm	Kathryn Brock
Mon	21-Mar	3pm-11pm	Dan Barss
Mon-Tues	3/21-3/22	11pm - 7am	Jessica Kratchman
Tues	22-Mar	7am - 3pm	Kathryn Brock
Tues	22-Mar	3pm-11pm	Tim Harris
Tues-Wed	3/22-3/23	11pm - 7am	Jessica Kratchman
Wed	23-Mar	7am - 3pm	Sandra Wastler
Wed	23-Mar	3pm-11pm	Vince Holahan
Wed-Thur	3/23-3/24	11pm - 7am	Jessica Kratchman

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Thur	24-Mar	7am - 3pm	Sandra Wastler
Thur	24-Mar	3pm-11pm	Stacey Rosenberg
Thur-Fri	3/24-3/25	11pm - 7am	Jessica Kratchman
Fri	25-Mar	7am - 3pm	Kathryn Brock
Fri	25-Mar	3pm-11pm	Vince Holahan
Fri-Sat	3/25-3/26	11pm-7am	Greg Casto
Sat	26-Mar	7am - 3pm	Dan Barss
Sat	26-Mar	3pm-11pm	Sandra Wastler
Sat-Sun	3/26-3/27	11pm - 7am	Greg Casto/Jessica Kratchman

PMTR RAAD

Sat-Sun	3/19-3/20	11pm - 7am	Patricia Milligan
Sun	20-Mar	7am - 3pm	Eric Schrader
Sun	20-Mar	3pm-11pm	Steve LaVie
Sun-Mon	3/20-3/21	11pm - 7am	Mike Norris
Mon	21-Mar	7am - 3pm	Michelle Hart
Mon	21-Mar	3pm-11pm	Steve Lavie
Mon-Tues	3/21-3/22	11pm - 7am	Boby Abu-Eid
Tues	22-Mar	7am - 3pm	Bruce Watson
Tues	22-Mar	3pm-11pm	Steve LaVie
Tues-Wed	3/22-3/23	11pm - 7am	Boby Abu-Eid
Wed	23-Mar	7am - 3pm	Bruce Watson
Wed	23-Mar	3pm-11pm	Michelle Hart
Wed-Thur	3/23-3/24	11pm - 7am	Duane Schmidt
Thur	24-Mar	7am - 3pm	Bruce Watson
Thur	24-Mar	3pm-11pm	Steve LaVie
Thur-Fri	3/24-3/25	11pm - 7am	Cynthia Barr
Fri	25-Mar	7am - 3pm	Bruce Watson
Fri	25-Mar	3pm-11pm	Michelle Hart
Fri-Sat	3/25-3/26	11pm-7am	Cynthia Barr
Sat	26-Mar	7am - 3pm	Bruce Watson
Sat	26-Mar	3pm-11pm	Steve LaVie
Sat-Sun	3/26-3/27	11pm - 7am	Mike Norris

PMTR Dose Assessment (RASCAL) - Need 2

Sat-Sun	3/19-3/20	11pm - 7am	Kimberly Gambone/John Parillo
Sun	20-Mar	7am - 3pm	Casper Sun / Duane Schmidt
Sun	20-Mar	3pm-11pm	Margaret Cervera / Tony Huffert
Sun-Mon	3/20-3/21	11pm - 7am	Kimberly Gambone/John Parillo
Mon	21-Mar	7am - 3pm	Eric Schrader/Rich Clement
Mon	21-Mar	3pm-11pm	Margaret Cervera/Tony Huffert
Mon-Tues	3/21-3/22	11pm - 7am	John Parillo / Bernie White
Tues	22-Mar	7am - 3pm	Eric Schrader/Rich Clement
Tues	22-Mar	3pm-11pm	Gary Purdy/Casper Sun
Tues-Wed	3/22-3/23	11pm - 7am	Margaret Cervera/Tony Huffert
Wed	23-Mar	7am - 3pm	Eric Schrader/Rich Clement
Wed	23-Mar	3pm-11pm	Kimberly Gambone/Casper Sun
Wed-Thur	3/23-3/24	11pm - 7am	Tony Huffert/John Parillo
Thur	24-Mar	7am - 3pm	Eric Schrader/Rich Clement
Thur	24-Mar	3pm-11pm	Kimberly Gambone/Casper Sun
Thur-Fri	3/24-3/25	11pm - 7am	Tony Huffert/John Parillo
Fri	25-Mar	7am - 3pm	Eric Schrader/Rich Clement

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Fri	25-Mar	3pm-11pm	Gary Purdy/Casper Sun
Fri-Sat	3/25-3/26	11pm-7am	John Parillo / Bernie White
Sat	26-Mar	7am - 3pm	Tony Huffert/Charlie Hinson
Sat	26-Mar	3pm-11pm	Leroy Hardin/Gary Purdy?
Sat-Sun	3/26-3/27	11pm - 7am	John Parillo/Ron LaVera
PMTR GIS Analyst			
Sun-Mon	3/20-3/21	11pm - 7am	Alice Stieve
Mon	21-Mar	7am - 3pm	Nebiyu Tiruneh
Mon	21-Mar	3pm-11pm	Stephanie Devlin
Mon-Tues	3/21-3/22	11pm - 7am	Alice Stieve
Tues	22-Mar	7am - 3pm	Yong Li
Tues	22-Mar	3pm-11pm	Stephanie Devlin
Tues-Wed	3/22-3/23	11pm - 7am	Alice Stieve
Wed	23-Mar	7am - 3pm	Allen Gross
Wed	23-Mar	3pm-11pm	Stephanie Devlin
Wed-Thur	3/23-3/24	11pm - 7am	Phil Brandt
Thur	24-Mar	7am - 3pm	Yong Li
Thur	24-Mar	3pm-11pm	Stephanie Devlin
Thur-Fri	3/24-3/25	11pm - 7am	Dogan Seber
Fri	25-Mar	7am - 3pm	Allen Gross
Fri	25-Mar	3pm-11pm	N/A
Fri-Sat	3/25-3/26	11pm-7am	N/A
Sat	26-Mar	7am - 3pm	N/A
Sat	26-Mar	3pm-11pm	N/A
Sat-Sun	3/26-3/27	11pm - 7am	N/A
PMTR Meteorologist			
Sat-Sun	19-Mar	3pm-11pm	Mike Mazaika
Sun	3/19-3/20	11pm - 7am	David Brown
Sun	20-Mar	7am - 3pm	Kevin Quinlan
Sun	20-Mar	3pm-11pm	Mike Mazaika
Sun-Mon	3/20-3/21	11pm - 7am	David Brown
Mon	21-Mar	7am - 3pm	Mike Mazaika
Mon	21-Mar	3pm-11pm	Brad Harvey
Mon-Tues	3/21-3/22	11pm - 7am	Kevin Quinlan
Tues	22-Mar	7am - 3pm	David Brown
Tues	22-Mar	3pm-11pm	Brad Harvey
Tues-Wed	3/22-3/23	11pm - 7am	Andy Imboden/Kevin Quinlan
Wed	23-Mar	7am - 3pm	Mike Mazaika
Wed	23-Mar	3pm-11pm	Brad Harvey
Wed-Thur	3/23-3/24	11pm - 7am	Kevin Quinlan
Thur	24-Mar	7am - 3pm	David Brown
Thur	24-Mar	3pm-11pm	Brad Harvey
Thur-Fri	3/24-3/25	11pm - 7am	Kevin Quinlan
Fri	25-Mar	7am - 3pm	Mike Mazaika
Fri	25-Mar	3pm-11pm	N/A
Fri-Sat	3/25-3/26	11pm-7am	N/A
Sat	26-Mar	7am - 3pm	N/A
Sat	26-Mar	3pm-11pm	N/A
Sat-Sun	3/26-3/27	11pm - 7am	N/A

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Reactor Safety Team			
RST Director			
Sat-Sun	3/19-3/20	11pm - 7am	Jennifer Uhle
Sun	20-Mar	7am - 3pm	Laura Dudes
Sun	20-Mar	3pm-11pm	Dave Skeen
Sun-Mon	3/20-3/21	11pm - 7am	Jennifer Uhle
Mon	21-Mar	7am - 3pm	Fred Brown
Mon	21-Mar	3pm-11pm	Dave Skeen
Mon-Tues	3/21-3/22	11pm - 7am	Jennifer Uhle
Tues	22-Mar	7am - 3pm	Fred Brown
Tues	22-Mar	3pm-11pm	Dave Skeen
Tues-Wed	3/22-3/23	11pm - 7am	Brian Holian
Wed	23-Mar	7am - 3pm	Fred Brown
Wed	23-Mar	3pm-11pm	Bill Ruland
Wed-Thur	3/23-3/24	11pm - 7am	Brian Holian
Thur	24-Mar	7am - 3pm	Fred Brown
Thur	24-Mar	3pm-11pm	Bill Ruland
Thur-Fri	3/24-3/25	11pm - 7am	Brian Holian
Fri	25-Mar	7am - 3pm	Pat Hiland
Fri	25-Mar	3pm-11pm	Bill Ruland
Fri-Sat	3/25-3/26	11pm-7am	Brian Holian
Sat	26-Mar	7am - 3pm	Pat Hiland
Sat	26-Mar	3pm-11pm	Bill Ruland
Sat	3/26-27/2011	11pm - 7am	Dave Skeen
RST Coordinator			
Sat-Sun	3/19-3/20	11pm - 7am	Frank Collins
Sun	20-Mar	7am - 3pm	Peter Alter
Sun	20-Mar	3pm-11pm	Eric Thomas
Sun-Mon	3/20-3/21	11pm - 7am	Mike Morlang
Mon	21-Mar	7am - 3pm	Peter Alter
Mon	21-Mar	3pm-11pm	Greg Schoenebeck
Mon-Tues	3/21-3/22	11pm - 7am	Frank Collins
Tues	22-Mar	7am - 3pm	Rick Hasselberg
Tues	22-Mar	3pm-11pm	Mike Morlang
Tues-Wed	3/22-3/23	11pm - 7am	Oleg Bukharin
Wed	23-Mar	7am - 3pm	Eric Thomas
Wed	23-Mar	3pm-11pm	Greg Schoenebeck
Wed-Thur	3/23-3/24	11pm - 7am	Frank Collins
Thur	24-Mar	7am - 3pm	Rick Hasselberg
Thur	24-Mar	3pm-11pm	Brett Rini
Thur-Fri	3/24-3/25	11pm - 7am	Tom Boyce (RES)
Fri	25-Mar	7am - 3pm	Eric Thomas
Fri	25-Mar	3pm-11pm	Brett Rini
Fri-Sat	3/25-3/26	11pm-7am	Frank Collins
Sat	26-Mar	7am - 3pm	Eric Thomas
Sat	26-Mar	3pm-11pm	Mark Orr
Sat-Sun	3/26-3/27	11pm - 7am	Brett Rini
Severe Accident/PRA			
Sat-Sun	3/19-3/20	11pm - 7am	Mike Salay
Sun	20-Mar	7am - 3pm	John Lane

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

	Sun	20-Mar	3pm-11pm	Jim Gilmer
	Sun-Mon	3/20-3/21	11pm - 7am	Don Dube
	Mon	21-Mar	7am - 3pm	Jeff Circle
	Mon	21-Mar	3pm-11pm	Hossein Esmaili
	Mon-Tues	3/21-3/22	11pm - 7am	Jim Gilmer
	Tues	22-Mar	7am - 3pm	Ed Fuller
	Tues	22-Mar	3pm-11pm	Len Ward
	Tues-Wed	3/22-3/23	11pm - 7am	Sam Miranda
	Wed	23-Mar	7am - 3pm	Jeff Circle
	Wed	23-Mar	3pm-11pm	Steven Arndt
	Wed-Thur	3/23-3/24	11pm - 7am	Mike Salay
	Thur	24-Mar	7am - 3pm	Jeff Circle
	Thur	24-Mar	3pm-11pm	Steve Laur
	Thur-Fri	3/24-3/25	11pm - 7am	Don Helton
	Fri	25-Mar	7am - 3pm	Steven Arndt
	Fri	25-Mar	3pm-11pm	Steve Laur
	Fri-Sat	3/25-3/26	11pm-7am	Don Helton
	Sat	26-Mar	7am - 3pm	Steven Arndt
	Sat	26-Mar	3pm-11pm	Jerry Dozier
	Sat-Sun	3/26-3/27	11pm - 7am	Ray Skarda
BWR Expertise				
	Sat-Sun	3/19-3/20	11pm - 7am	John Kauffman
	Sun	20-Mar	7am - 3pm	Larry Vick
	Sun	20-Mar	3pm-11pm	Chuck Norton
	Sun-Mon	3/20-3/21	11pm - 7am	Mike Brown
	Mon	21-Mar	7am - 3pm	Bob Summers
	Mon	21-Mar	3pm-11pm	Chuck Norton
	Mon-Tues	3/21-3/22	11pm - 7am	Mike Brown
	Tues	22-Mar	7am - 3pm	Tom Boyce (RES)
	Tues	22-Mar	3pm-11pm	Chuck Norton
	Tues-Wed	3/22-3/23	11pm - 7am	Mike Brown
	Wed	23-Mar	7am - 3pm	Larry Vick
	Wed	23-Mar	3pm-11pm	Chuck Norton
	Wed-Thur	3/23-3/24	11pm - 7am	Eva Brown
	Thur	24-Mar	7am - 3pm	Peter Alter
	Thur	24-Mar	3pm-11pm	Chuck Norton
	Thur-Fri	3/24-3/25	11pm - 7am	Eva Brown
	Fri	25-Mar	7am - 3pm	Bob Summers
	Fri	25-Mar	3pm-11pm	Chuck Norton
	Fri-Sat	3/25-3/26	11pm-7am	Eva Brown
	Sat	26-Mar	7am - 3pm	Mike Brown
	Sat	26-Mar	3pm-11pm	Chuck Norton
	Sat-Sun	3/26-3/27	11pm - 7am	Eva Brown
RST Comm/ERDS Operator				
	Sat-Sun	3/19-3/20	11pm - 7am	Ujagar Bhachu
	Sun	20-Mar	7am - 3pm	Denise McGovern
	Sun	20-Mar	3pm-11pm	Donna Williams
	Sun-Mon	3/20-3/21	11pm - 7am	Ujagar Bhachu
	Mon	21-Mar	7am - 3pm	Joseph Williams
	Mon	21-Mar	3pm-11pm	John Thorp

Japan Earthquake ERO Staffing Roster
March 20-26, 2011
Pay Period 7 - Week 2

Mon-Tues	3/21-3/22	11pm - 7am	Bill Roggenbrodt
Tues	22-Mar	7am - 3pm	Steve Bloom
Tues	22-Mar	3pm-11pm	Jim Isom
Tues-Wed	3/22-3/23	11pm - 7am	Bill Roggenbrodt
Wed	23-Mar	7am - 3pm	Joseph Williams
Wed	23-Mar	3pm-11pm	Ken Hart
Wed-Thur	3/23-3/24	11pm - 7am	Bill Roggenbrodt
Thur	24-Mar	7am - 3pm	John Thorp
Thur	24-Mar	3pm-11pm	Ken Hart
Thur-Fri	3/24-3/25	11pm - 7am	Bill Roggenbrodt
Fri	25-Mar	7am - 3pm	Donna Williams
Fri	25-Mar	3pm-11pm	David Solorio
Fri-Sat	3/25-3/26	11pm-7am	Rick Hasselberg
Sat	26-Mar	7am - 3pm	John Thorp
Sat	26-Mar	3pm-11pm	Stan Gardocki
Sat-Sun	3/26-3/27	11pm - 7am	Denise McGovern
RST Support (Seismology Q&A)			
Fri-Sat	3/18-3/19	11pm-7am	Off (On Call)
Sat	19-Mar	7am - 3pm	Off (On Call)
Sat	19-Mar	3pm-11pm	Off (On Call)
Sat-Sun	3/19-3/20	11pm - 7am	Alice Stieve (On Call) Working as PMT GIS
Sun	20-Mar	7am - 3pm	Cliff Munson (On Call)
Sun	20-Mar	3pm-11pm	Annie Kammerer (On Call)
Sun-Mon	3/20-3/21	11pm - 7am	Stephanie Devlin (On Call)
Mon	21-Mar	7am - 3pm	Cliff Munson (On Call)
Mon	21-Mar	3pm-11pm	A. Kammerer 3-11; M. Bensi 3-6 (On Call)
Mon-Tues	3/21-3/22	11pm - 7am	Dogan Seber (On Call)
Tues	22-Mar	7am - 3pm	Nilesh Chokchi On Call)
Tues	22-Mar	3pm-11pm	S. Devlin 3-11; M. Bensi 3-6 (On Call)
Tues-Wed	3/22-3/23	11pm - 7am	Cliff Munson (On Call)
Wed	23-Mar	7am - 3pm	Nilesh Chokchi On Call)
Wed	23-Mar	3pm-11pm	A. Kammerer 3-11, M. Bensi 3-6 (On Call)
Wed-Thur	3/23-3/24	11pm - 7am	Annie Kammerer (On Call)
Thur	24-Mar	7am - 3pm	Cliff Munson (On Call)
Thur	24-Mar	3pm-11pm	A. Kammerer 3-11, M. Bensi 3-6 (On Call)
Thur-Fri	3/24-3/25	11pm - 7am	Dogan Seber (On Call)
Fri	25-Mar	7am - 3pm	Dogan Seber (On Call)
Fri	25-Mar	3pm-11pm	A. Kammerer 3-11, M. Bensi 3-6 (On Call)
Fri-Sat	3/25-3/26	11pm-7am	Dogan Seber (On Call)
Sat	26-Mar	7am - 3pm	A. Kammerer (On Call)
Sat	26-Mar	3pm-11pm	A. Kammerer (On Call)
Sat-Sun	3/26-3/27	11pm - 7am	A. Kammerer (On Call)
RST Support (Structural)			
Fri-Sat	3/18-3/19	11pm-7am	Off (On Call)
Sat	19-Mar	7am - 3pm	Off (On Call)
Sat	19-Mar	3pm-11pm	Off (On Call)
Sat-Sun	3/19-3/20	11pm - 7am	Off (On Call)
Sun	20-Mar	7am - 3pm	Off (On Call)
Sun	20-Mar	3pm-11pm	Off (On Call)
Sun-Mon	3/20-3/21	11pm - 7am	Off (On Call)

Japan Earthquake ERO Staffing Roster

March 20-26, 2011

Pay Period 7 - Week 2

Mon	21-Mar	7am - 3pm	Off (On Call)
Mon	21-Mar	3pm-11pm	Bret Tegeler (On Call)
Mon-Tues	3/21-3/22	11pm - 7am	Bret Tegeler (On Call)
Tues	22-Mar	7am - 3pm	Pravin Patel (On Call)
Tues	22-Mar	3pm-11pm	Bret Tegeler (On Call)
Tues-Wed	3/22-3/23	11pm - 7am	Bret Tegeler (On Call)
Wed	23-Mar	7am - 3pm	Pravin Patel (On Call)
Wed	23-Mar	3pm-11pm	Samir Chakrabart (On Call)
Wed-Thur	3/23-3/24	11pm - 7am	Samir Chakrabart (On Call)
Thur	24-Mar	7am - 3pm	Pravin Patel (On Call)
Thur	24-Mar	3pm-11pm	Jerry Chung (On Call)
Thur-Fri	3/24-3/25	11pm - 7am	Jerry Chung (On Call)
Fri	25-Mar	7am - 3pm	Pravin Patel (On Call)
Fri	25-Mar	3pm-11pm	Manas Chakravorty (On Call)
Fri-Sat	3/25-3/26	11pm-7am	Manas Chakravorty (On Call)
Sat	26-Mar	7am - 3pm	Off (On Call)
Sat	26-Mar	3pm-11pm	Off (On Call)
Sat-Sun	3/26-3/27	11pm - 7am	Off (On Call)

From: Burnell, Scott
To: Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly; McIntyre, David; Couret, Ivonne; Janbergs, Holly; Screnci, Diane; Sheehan, Neil; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Cc: Anderson, Brian
Subject: Updated language on GI-199 generic letter
Date: Friday, March 25, 2011 1:09:15 PM

All;

This NRR-approved language (slightly different than what I said on the call, my apologies) replaces the current Q&A #7 in the GI-199 talking points and Q&A:

7. What happens next with GI-199?

The NRC is developing a Generic Letter (GL) to request information from all 104 U.S. nuclear plants. The GL will be issued in draft form to support a public meeting in late Spring 2011. In addition, in accordance with its internal review processes, the NRC will also present the GL to the Advisory Committee on Reactor Safeguards. The draft GL will also be issued for formal public comment in late Summer 2011. The final GL is expected to be issued by end of 2011, near the time when new seismic models become available. These new seismic models are being developed by NRC, DOE, and EPRI. In addition the USGS will review the model. Information requested in the GL will likely require 3 to 6 months for nuclear plant licensees to prepare. NRC's review will be on-going as information is collected. Based on NRC's review of that information, a determination will be made regarding potential changes at nuclear plants based on cost-benefit backfit analysis.

The full revised talking points and Q&A will be coming later today.

Scott

Am/76

From: Hayden, Elizabeth
To: Brenner, Eliot
Subject: RE: press release on pump machine
Date: Friday, March 25, 2011 1:39:00 PM

I agree Bechtel should be out front and NRC could chime in—on camera if we get reporter interest. I don't see us doing a press release. It would be great if we could do a little webcast/podcast with Bechtel. Michelle called to ask if we had studios and I said we didn't but there were some in Rockville (we went with Dan Dean there). I have scanned the drawings and sent the PDF of the drawings to her. She still isn't sure exactly how they want to trot this out to the media. If they decide to do a press release, we can get inserted in there along with the drawings. I have 3 names associated with the drawings (none are Bill Ruland). We would need to check with them to see if any are available today or tomorrow. Do you want me to ask them about their availability? Any other thoughts about what Bechtel might do would probably be appreciated by Michelle.

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: Brenner, Eliot
Sent: Friday, March 25, 2011 1:16 PM
To: Hayden, Elizabeth
Subject: press release on pump machine

What are your thoughts as to have one or not. I can dummy something up to float around in case if it would take a load off you. Also, either way we are going to need the original of the drawing from the guy who did it from which to make a PDF.

Eliot

Am/77

From: LIA11 Hoc
Sent: Tuesday, March 15, 2011 10:39 AM
To: RMTFACTSU_ELNRC
Subject: FW: ND Incident Suite - Contact arrangements
Attachments: image001.jpg

Importance: High

Categories: FOIA

From: HOO Hoc
Sent: Tuesday, March 15, 2011 10:38 AM
To: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: ND Incident Suite - Contact arrangements
Importance: High

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



From: Shawn.Caza@international.gc.ca [mailto:Shawn.Caza@international.gc.ca] **On Behalf Of** vperm@international.gc.ca
Sent: Tuesday, March 15, 2011 10:30 AM
To: LIA02 Hoc; vperm@international.gc.ca; ExternalLiaisonOfficer.EOC2@cnsccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; peter.ford@hse.gsi.gov.uk; Anthony.Hinton@international.gc.ca; ShafferMr@state.gov
Cc: HOO Hoc; RST01 Hoc; PMT01 Hoc
Subject: RE: ND Incident Suite - Contact arrangements
Importance: High

For document Integrity Inspection of Dry Storage Casks and Spent Fuel Storage at Fukushima Daiichi please use http://www.nirs.org/reactorwatch/accidents/6-1_powerpoint.pdf

For IAEA Wet and Dry Storage Survey which uncludes Japan please see http://www-pub.iaea.org/MTCD/publications/PDF/te_1100_prn.pdf
Shawn

Shawn Caza
Counsellor and Alternative Permanent Representative
Conseiller et représentant permanent suppléant
Botschaftsrat und Stellvertretender
Permanent Mission to the International Organizations in Vienna
Mission permanente auprès des organisations internationales à Vienne
Ständige Vertretung Kanadas bei den Internationalen Organisationen in Wien
Laurenzerberg 2
A-1010 Vienna
Austria
Tel: (+43-1) 531 38-38 03
Fax: (+43-1) 531 38-39 03
shawn.caza@international.gc.ca

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: March 15, 2011 12:09 PM
To: VPERM (G); ExternalLiaisonOfficer.EOC2@cnsccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; peter.ford@hse.gsi.gov.uk; Hinton, Anthony -VPERM -GR; Caza, Shawn -VPERM -GR; ShafferMr@state.gov
Cc: HOO Hoc; RST01 Hoc; PMT01 Hoc
Subject: RE: ND Incident Suite - Contact arrangements

Correction: please call **301-816-5100** for "UK-Canada" at 0930.

From: LIA02 Hoc
Sent: Tuesday, March 15, 2011 4:56 AM
To: 'vperm@international.gc.ca'; ExternalLiaisonOfficer.EOC2@cnsccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; 'peter.ford@hse.gsi.gov'
Cc: Anthony.Hinton@international.gc.ca; Shawn.Caza@international.gc.ca; 'ShafferMr@state.gov'
Subject: RE: ND Incident Suite - Contact arrangements

Hello All –

NRC can support another 0930 call (Washington time) with our colleagues from Canada and the UK. NRC plans to have an international liaison, reactor safety expert and protective measures expert on the call. Please call into the NRC Operations Center at 301-415-5100 and request to be connected to the "Canada-UK teleconference."

Please confirm your organization's availability.

Thanks

From: Anthony.Hinton@international.gc.ca [mailto:Anthony.Hinton@international.gc.ca] **On Behalf Of** vperm@international.gc.ca
Sent: Tuesday, March 15, 2011 4:36 AM
To: ExternalLiaisonOfficer.EOC2@cnsccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; LIA02 Hoc
Cc: vperm@international.gc.ca; Anthony.Hinton@international.gc.ca; Shawn.Caza@international.gc.ca
Subject: RE: ND Incident Suite - Contact arrangements

Dear Colleagues,

We agree fully. Thank you for your assistance yesterday. We are looking forward to another call today, if possible.

With kind regards from Vienna,
Anthony

Anthony HINTON

Counsellor (Nuclear Affairs) | Conseiller (Affaires nucléaires)
Permanent Mission of Canada to the International Organizations in Vienna |
Mission permanente du Canada auprès des organisations internationales à Vienne
Laurenzerberg 2, 1010 Vienna, Austria
Anthony.Hinton@international.gc.ca
+43 1 531 38 3212 - office | bureau
+43 1 531 38 3903 - facsimile | télécopieur
+43 664 812 3685 - mobile
Government of Canada | Gouvernement du Canada

From: EOC2, External Liaison Officer [<mailto:ExternalLiaisonOfficer.EOC2@cnscccsn.gc.ca>]
Sent: March 14, 2011 4:26 PM
To: 'NSD.EMERGENCY@hse.gsi.gov.uk'; 'lia02.hoc@nrc.gov'
Cc: VPERM (G)
Subject: RE: ND Incident Suite - Contact arrangements

All

Thanks very much for the informative discussion this morning. Much was clarified.

Regards

Richard Tennant
CNSC External/International Liaison

From: NSD.EMERGENCY@hse.gsi.gov.uk [<mailto:NSD.EMERGENCY@hse.gsi.gov.uk>]
Sent: Monday, March 14, 2011 10:47 AM
To: EOC2, External Liaison Officer
Subject: FW: ND Incident Suite - Contact arrangements

Apologies - I incorrectly input your eMail address previously

ND Incident Suite
nsd.emergency@hse.gsi.gov.uk
0044-151-951-4161

From: NSD EMERGENCY
Sent: 14 March 2011 14:34
To: 'vperm@international.gc.ca'; 'eoc@cnscccsn.gc.ca'; 'lia02.hoc@nrc.gov'
Subject: ND Incident Suite - Contact arrangements

All

Further to your recent telecon with Dave Shepherd this is the contact address for eMails

ND Incident Suite

nsd.emergency@hse.gsi.gov.uk

0044-151-951-4161

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Or contact the HSE Infoline on 0845 345 0055 or email hse.infoline@natbrit.com

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From: Hayden, Elizabeth
To: Sheehan, Neil
Subject: RE: Reporter Call - FYI
Date: Wednesday, April 06, 2011 2:30:00 PM

thanks

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: Sheehan, Neil
Sent: Wednesday, April 06, 2011 2:11 PM
To: Hayden, Elizabeth; McIntyre, David; Burnell, Scott; Harrington, Holly
Subject: RE: Reporter Call - FYI

We can.

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 2:11 PM
To: McIntyre, David; Sheehan, Neil; Burnell, Scott; Harrington, Holly
Subject: RE: Reporter Call - FYI

So Neil/Diane, can you return the reporter's call? If you need our help, let us know.

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: McIntyre, David
Sent: Wednesday, April 06, 2011 2:08 PM
To: Sheehan, Neil; Hayden, Elizabeth; Burnell, Scott; Harrington, Holly
Subject: RE: Reporter Call - FYI

How does one comply with an earthquake?

From: Sheehan, Neil
Sent: Wednesday, April 06, 2011 2:07 PM
To: Hayden, Elizabeth; Burnell, Scott; McIntyre, David; Harrington, Holly

Am/79

Subject: FW: Reporter Call - FYI

Be on the lookout for a reporter not afraid to shade the truth.

From: Screnci, Diane
Sent: Wednesday, April 06, 2011 2:05 PM
To: Sheehan, Neil; Heinly, Justin
Cc: Bellamy, Ronald; Kern, David
Subject: RE: Reporter Call - FYI

I didn't either.

DIANE SCRENCI
SR. PUBLIC AFFAIRS OFFICER
USNRC, RI
610/337-5330

From: Sheehan, Neil
Sent: Wednesday, April 06, 2011 2:05 PM
To: Heinly, Justin; Screnci, Diane
Cc: Bellamy, Ronald; Kern, David
Subject: RE: Reporter Call - FYI

I didn't talk to him.

From: Heinly, Justin
Sent: Wednesday, April 06, 2011 2:04 PM
To: Screnci, Diane; Sheehan, Neil
Cc: Bellamy, Ronald; Kern, David
Subject: Reporter Call - FYI

Diane/Neil,

I just got a call from Jerome Burich of Fox news and he was inquiring if TMI was 'earthquake compliant'. I forwarded him onto HQ OPA (301-415-8200) since he stated that he already discussed the issue with one of you. I took down his contact information if you would like to reach out to him if necessary.

Just an FYI.

Justin Heinly
TMI RI

Riley (OCA), Timothy

From: LIA07 Hoc
Sent: Wednesday, April 13, 2011 12:15 PM
To: LIA07 Hoc; LIA12 Hoc; Droggitis, Spiros; Riley (OCA), Timothy
Subject: 1200 EDT 04132011 USNRC Japan Plant Condition Update
Attachments: USNRC Japan Plant Condition Update April 13 1200EDT.pdf

Please find attached the 1200 04/13/11 NRC Japan Plant Condition Update.

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

Thank you,

Sara

Sara Mroz
United States Nuclear Regulatory Commission
LIA07.HOC@nrc.gov (Operations Center)

From: CommissionCalendar Resource

To: Apostolakis, George; Ash, Darren; Blake, Kathleen; Borchardt, Bill; Bozin, Sunny; Bubar, Patrice; Burns, Stephen; Ciani, Sandra; Commission Hearing Room; Crawford, Carrie; Franovich, Mike; GBJGroupCalendar Resource; GEA Daily Cal Resource; GEA Staff Daily Resource; Harves, Carolyn; Hasan, Nasreen; Hayden, Elizabeth; Herr, Linda; Jaczko, Gregory; Joosten, Sandy; Kock, Andrea; Lepre, Janet; Muesle, Mary; Nieh, Ho; Pulley, Deborah; Sharkey, Jeffry; Svinicki, Kristine; Taylor, Renee; Temp, WCO; Temp, WDM; Vietti-Cook, Annette; Virgilio, Martin; Weber, Michael

Subject: Hearing: Japan at 2:45pm - Senate Committee on Environment and Public Works & Subcommittee on Clean Air and Nuclear Safety

When: Tuesday, April 12, 2011 12:00 AM to Wednesday, April 13, 2011 12:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where: Dirksen 406

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

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

Senate Committee on Environment and Public Works and its Subcommittee on Clean Air and Nuclear Safety
Title of Hearing: Review of the Nuclear Emergency in Japan and Implications for the U.S.
Date/Time: Tuesday, April 12, 2011, at 2:45pm
Location: Dirksen room 406

Am/ 81

From: Burnell, Scott
To: Hayden, Elizabeth
Subject: RE: ACTION: MTG IN THE OPS CTR TOMORROW ON RELEASE DECISION RE: RST ASSESSMENTS
Date: Wednesday, April 06, 2011 2:05:24 PM

Working in Ops Ctr right now to better coordinate with ET and RST on Unit 2 response – Marty's tied in via e-mail.

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 1:58 PM
To: Wiggins, Jim; Brenner, Eliot
Cc: Burnell, Scott
Subject: RE: ACTION: MTG IN THE OPS CTR TOMORROW ON RELEASE DECISION RE: RST ASSESSMENTS

I will attend. Scott is already frazzled and needs the time off.

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: Wiggins, Jim
Sent: Wednesday, April 06, 2011 1:16 PM
To: Brenner, Eliot; Hayden, Elizabeth
Subject: ACTION: MTG IN THE OPS CTR TOMORROW ON RELEASE DECISION RE: RST ASSESSMENTS

See this...It's important that one of you come to this. (Also, that would allow Scott to take his deserved time off instead of needing to be here to deal with a problem not his doing.)

From: LIA08 Hoc
Sent: Wednesday, April 06, 2011 1:06 PM
To: LIA08 Hoc; Leeds, Eric; Burns, Stephen; Nichols, Russell; Powell, Amy; Schmidt, Rebecca; LIA06 Hoc; ET05 Hoc; ET07 Hoc; Wiggins, Jim; McGinty, Tim; Boger, Bruce
Subject: Potential Release of RST Assessment (Subject of 4/6 NY Times Article)
When: Thursday, April 07, 2011 9:00 AM-10:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where: HQ EOC (4th floor TWFN) ET Room

When: Thursday, April 07, 2011 9:00 AM-10:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where: HQ EOC (4th floor TWFN) ET Room

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

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

The Liaison Team at the HQ Emergency Operations Center has been asked by the Executive Team

AMY/82

to schedule a special meeting to (1) discuss the merits of releasing (to the public) two versions of an RST Assessment document (attached for your review) and (2) come to a decision on this point.

Riley (OCA), Timothy

From: CQ Homeland Security Afternoon Update [cqhlspm-owner@cqrollcall.com]
Sent: Wednesday, April 13, 2011 3:31 PM
To: Riley (OCA), Timothy
Subject: CQ Homeland Security Afternoon Update

SHAPE OPINIONS



Wednesday, April 13, 3:09 PM

Latest News

Afternoon Take: Borras Gets Committee Approval

Rafael Borras, President Obama's pick for a top Department of Homeland Security post, made it one step closer to confirmation Wednesday as the Senate Homeland Security Committee approved his nomination by voice vote.

» READ | By Chad Brand

CQ Transcripts



Japan

- [Senate Environment and Public Works and Its Clean Air and Nuclear Safety Subcommittee Hold Joint Hearing on the Japan Nuclear Reactor Emergency and the U.S. Implications, Panel 2](#)
- [Senate Environment and Public Works Committee and its Clean Air and Nuclear Safety Subcommittee Hold Joint Hearing on the Japan Nuclear Reactor Emergency and the U.S. Implications, Panel 1](#)

Online Privacy

- [Sens. Kerry and McCain Hold News Conference on the Commercial Privacy Bill of Rights Act of 2011](#)

Servicemembers and Families

- [President Obama, Vice President Biden, First Lady Michelle Obama and Jill Biden Deliver Remark](#)

Middle East, North Africa

- [State Department Holds Regular News Briefing](#)

New Documents on CQ Homeland Security

[Borders & Immigration](#) [Counterterrorism](#) [Courts & Justice](#) [Government Reorganization](#) [Federal Budget](#) [Industry & Contracting](#) [Intelligence](#) [Local Response](#) [Presidential Transition](#) [Technology](#) [Transportation & Infrastructure](#) [Weapons](#)

General

No new documents

Borders & Immigration

No new documents

Counterterrorism

Afternoon Take: Borras Gets Committee Approval

CQ Homeland Security News, 112th Congress (4/13/2011, 3:07 p.m.; 604 words)

Military Strategists Say Afghanistan Experiences Shaped Counterterror Strategy

CQ Homeland Security News, 112th Congress (4/12/2011, 7:45 p.m.; 715 words)

**Courts
&
Justice**

No new documents

**Government
Reorganization**

No new documents

**Federal
Budget**

No new documents

**Industry &
Contracting**

No new documents

Intelligence

BEHIND THE LINES: Our Take on the Other Media's Homeland Security Coverage

CQ Homeland Security News, 112th Congress (4/13/2011, 5:44 a.m.; 1650 words)

**Local
Response**

No new documents

**Presidential
Transition**

No new documents

Technology

Panel Decision on 'D Block' Moving to Back Burner

CQ Homeland Security News, 112th Congress (4/12/2011, 8:42 p.m.; 923 words)

Technology Sector, House Republicans Wary of Kerry's Online Privacy Bill

CQ Today, 112th Congress (4/12/2011, 6:14 p.m.; 617 words)

**Transportation
&
Infrastructure**

No new documents

No new documents

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To stop or change your subscription, forward this message to customerservice@cq.com.
Issue-Id: 47537833.cqhlspm:100

From: [Burnell, Scott](#)
To: [Hayden, Elizabeth](#)
Subject: FW: Internal NRC docs show doubts about US nuke safety
Date: Wednesday, April 06, 2011 2:12:56 PM

I plan to push back on this strongly, based on my understanding of the issues.

From: scott.malone@thomsonreuters.com [<mailto:scott.malone@thomsonreuters.com>]
Sent: Wednesday, April 06, 2011 1:57 PM
To: Burnell, Scott
Subject: FW: Internal NRC docs show doubts about US nuke safety

Here's the release they sent out, which links to the documents.

Scott Malone
Reuters News, Boston Bureau
+1-617-856-4342

From: Sarah Goldberg [<mailto:Sgoldberg@ucsusa.org>]
Sent: Wednesday, April 06, 2011 11:37 AM
To: Malone, Scott (M Edit Ops)
Subject: UCS: Internal NRC docs show doubts about US nuke safety

FOR IMMEDIATE RELEASE
CONTACT: Elliott Negin, 202-331-5439

INTERNAL NRC DOCUMENTS REVEAL DOUBTS ABOUT MEASURES TO ENSURE U.S. PLANTS SURVIVE FUKUSHIMA-TYPE EVENTS

WASHINGTON (April 6, 2011) – In the weeks following the Fukushima accident, Nuclear Regulatory Commission (NRC) and nuclear industry officials have been asserting that U.S. nuclear plants are better prepared to withstand a catastrophic event like the March 11 earthquake and tsunami than Japanese plants because they have additional safety measures in place.

However, according to internal NRC documents (links provided below) released today by the Union of Concerned Scientists (UCS), there is no consensus within the NRC that U.S. plants are sufficiently protected. The documents indicate that technical staff members doubt the effectiveness of key safety measures adopted after the September 11, 2001, terrorist attacks.

UCS obtained the documents on March 25 from a Freedom of Information Act (FOIA) request it made a month before the Japanese disaster.

"While the NRC and the nuclear industry have been reassuring Americans that there is nothing to worry about -- that we can do a better job dealing with a nuclear disaster like the one that just happened in Japan -- it turns out that privately NRC senior analysts are not so sure," said Edwin Lyman, a physicist with the UCS Global Security Program and an expert in nuclear plant design.

NRC and industry officials recently testified before Congress that U.S. reactors are fully prepared for the worst. For example, at a hearing hosted by the Senate Energy and Water Appropriations Subcommittee on March 30, NRC Chairman Gregory Jaczko testified: "As a result of the events of September 11, 2001, we identified important pieces of equipment, that regardless of the cause of a significant fire or explosion at a plant, the NRC requires licensees to have available and staged in advance, as well as new procedures and policies to help deal with a severe situation."

AM 874

Likewise, William Levis, the president and COO of the Public Service Enterprise Group, which owns two nuclear plants in New Jersey, told the subcommittee that "U.S. nuclear plant designs and operating practices since 9/11 are designed to mitigate severe accident scenarios such as aircraft impact, which include the complete loss of off-site power and all on-site emergency power sources and loss of large areas of the plant."

NRC calls these post-9/11 procedures "B.5.b measures," referencing the section of the compensatory-measures order the agency issued in 2002 to all reactor licensees. The agency codified them in its regulations in 2009 in a document titled CFR 50.54(hh)(2), but because their details are security-related, they are not publicly available.

At the March 30 hearing, both Jaczko and Levis sounded confident that B.5.b measures would protect U.S. reactors from the kind of disaster that befell the Fukushima Daiichi nuclear complex, which lost off-site and on-site power for an extended period, eventually leading to the loss of all cooling. Internal NRC documents obtained by UCS tell a different story.

In February 2011, UCS filed a FOIA request for all information associated with a secretive NRC program known as the "State of the Art Reactor Consequence Analyses." SOARCA, according to the NRC, is "a research effort to realistically estimate the outcomes of postulated severe accident scenarios that might cause a nuclear power plant to release radioactive material into the environment. The SOARCA project applies many years of national and international nuclear safety research, and incorporates the improvements in plant design, operation and accident management to achieve a more realistic evaluation of the consequences associated with such accidents." The NRC also stated that SOARCA takes into account enhancements required by NRC after 9/11 -- the B.5.b measures.

The SOARCA program, which the agency initiated in 2006, focused on two plants: Surry in Virginia and Peach Bottom in Pennsylvania. Coincidentally, Peach Bottom is a Mark I boiling water reactor (BWR) like Fukushima Daiichi reactors 1 through 4. One of the hypothetical accidents that the SOARCA program analyzed was a station blackout at Peach Bottom where the plant failed to recover power before the backup batteries ran out -- the very situation that occurred at Fukushima. That analysis would be extremely useful to understand what happened at Fukushima. However, the NRC has withheld nearly all documents related to SOARCA from the public.

In most Mark I BWRs experiencing a station blackout, Lyman explained, a cooling system that runs on battery power, known as the Reactor Core Isolation Cooling system, or RCIC, is available. But when the battery runs down -- after eight hours or less -- the RCIC will stop operating. If plant workers do not restore alternating current power by then, no cooling systems will be available and the fuel in the reactor will overheat and eventually begin to melt. Most experts believe that is what happened at Fukushima Daiichi units 1 through 3.

According to the documents obtained by UCS, NRC's B.5.b measures contain unspecified strategies to continue operating the RCIC even after battery power is lost. However, the documents make clear that there are disagreements between NRC senior reactor analysts who work in NRC's regional offices under the Office of Nuclear Reactor Regulation and the staff conducting the SOARCA project, who are in the agency's Office of Research.

In particular, one NRC staff [email exchange](#), dated July 28, 2010, described senior analysts' objections to SOARCA as follows: "One concern has been that SOARCA credits certain B5b mitigating strategies (such as RCIC operation w/o DC power) that have really not been reviewed to ensure that they will work to mitigate severe accidents. Generally, we have not even seen licensees credit these strategies in their own [probabilistic risk assessments] but for some reason the NRC decided we should during SOARCA. My recollection is that [Region I senior reactor analysts] in particular have been vocal with their concerns on SOARCA for several years, probably because Peach Bottom is one of the SOARCA plants."

In other words, senior reactor analysts who work directly with the Peach Bottom Mark I BWR apparently do not have faith in the effectiveness of the very B.5.b measures that the NRC and nuclear

industry officials are touting as a reason why the United States is better prepared to deal with a Fukushima-like event than Japan.

Another (undated) [document](#) reinforces this concern: "The application of 10 CFR 50.54(hh) [2009 regulations] mitigation measures still concerns a number of staff in [the Office of Nuclear Reactor Regulation]. The concern involves the manner in which credit is given to these measures such that success is assumed.... 10 CFR 50.54(hh) mitigation measures are just equipment on-site that can be useful in an emergency when used by knowledgeable operators if post-event conditions allow. If little is known about these post-event conditions, then assuming success is speculative."

"If we are going to have any confidence that U.S. plants are safe, the NRC and the industry has to be completely open and honest about what they know and what they don't know," said Lyman. "They are doing Americans a disservice if they are saying publicly that these untested measures are effective when privately they are expressing doubts that they will work."

Note: UCS also released another [NRC email](#) today that briefly discusses the schedule of the SOARCA analysis.

###

The Union of Concerned Scientists is the leading U.S. science-based nonprofit organization working for a healthy environment and a safer world. Founded in 1969, UCS is headquartered in Cambridge, Massachusetts, and also has offices in Berkeley, Chicago and Washington, D.C. For more information, go to www.ucsusa.org.

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From: Burnell, Scott
To: Hayden, Elizabeth
Subject: I have to ask again...
Date: Wednesday, April 06, 2011 2:15:01 PM
Importance: High

Beth;

We've got all this assessment stuff, the Unit 2 crap from Markey and now the UCS SOARCA distractions.

Yes, Brian's talented but there's only so much that can be read off of talking points or Q&A.

Please let me know if you need me here tomorrow and Friday.

Scott

AM/85

From: Santiago, Patricia
To: Burnell, Scott
Cc: Hayden, Elizabeth; Gibson, Kathy; Scott, Michael; Barr, Jonathan; Ghosh, Tina; Schaperow, Jason; Tinkler, Charles; Chang, Richard; Tene, Kimberly
Subject: RE: Media- Union of Concern Scientists documents
Date: Wednesday, April 06, 2011 2:27:28 PM

Absolutely
thanks

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 1:57 PM
To: Santiago, Patricia; Chang, Richard
Cc: Hayden, Elizabeth
Subject: FW: Media- Union of Concern Scientists documents

This stems from the FOIA – don't know who's in the e-mails, but we can expect reporters to try and contact staff directly -- please remind the team to forward any media requests to OPA.

From: scott.malone@thomsonreuters.com [mailto:scott.malone@thomsonreuters.com]
Sent: Wednesday, April 06, 2011 1:22 PM
To: Burnell, Scott
Subject: RE: Media- Union of Concern Scientists documents

The UCS says that the safety concerns raised in the documents it has released undercuts the NRC's recent expressions of confidence in the safety of U.S. nuclear power plants and that NRC officials are saying publicly that the safety plans will work while harboring private doubts about their effectiveness: Do you consider this a fair assertion? If not, why not?

Scott Malone
Reuters News, Boston Bureau
+1-617-856-4342

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 1:20 PM
To: Scott.malone@reuters.com
Subject: RE: Media- Union of Concern Scientists documents

Hello Scott;

What questions can I help you with? Thanks.

Scott Burnell
Public Affairs Officer
Nuclear Regulatory Commission

Name: Scott Malone
From: Reuters, Boston

Amy86

Phone: 617-856-4342

E-mail: Scott.malone@reuters.com

Re: Union of Concerned Scientists documents on Safety Plans and Reactors

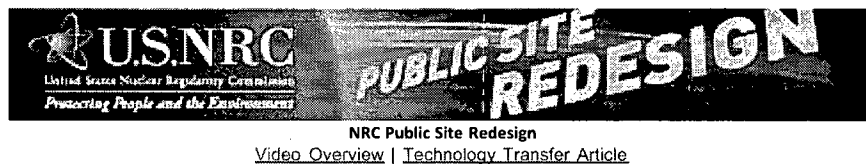
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From: Garrity, Paula
To: Landau, Mindy; Harrington, Holly; Hayden, Elizabeth; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Ellmers, Glenn; Rakovan, Lance; Medina, Veronika
Subject: RE: Blog posting and Press Release for the Public Site Redesign
Date: Wednesday, April 06, 2011 2:36:44 PM
Attachments: Redesign Announcement-032411.docx
Redesign Article - April 2011 Technology Transfer Issue 03-032411.docx
CommunicationPlan-External Redesign webpage.pdf
image002.png
image003.png

Hi Beth,

As agreed in my last meeting with Holly and Fran, we've drafted the attached article for publication in the OIS *Technology Transfer* newsletter this week. I wasn't aware that we were publishing an article in the *NRC Reporter*, but the more publicity the better. We've also drafted the attached Announcement for issuance on April 12th. It's fine if you'd prefer to have Lance or Veronika handle it, but please let me know whether or not to proceed with our announcement, and whether you'd like it issued on the 12th or 14th.

The banner highlight for the internal site will initially appear as follows, and we'll add additional links on April 12th (or 14th??) to point to the Network Announcement and Blog posting. (The Tech Transfer link will be changed to point to the Redesign article when the Spring issue is published.) Please let me know if you'd like us to hold off until the 14th to post this banner highlight and Redesign video to the internal site.



Based on Mindy's request, I'm assuming that you'll also want to hold off until the 14th to post the Redesign video to the current public site along with the Home page highlight. Please let me know if I'm incorrect in that assumption.

In addition, as requested, I've attached the latest Redesign Communication Plan, which I provided for your review on March 16th. This plan is also available on the internal site at http://www.internal.nrc.gov/communications/plans/active/CommunicationPlan-External_Redesign_webpage.pdf. It reflects the following timeline for the remaining Redesign communication activities.

Activity	Draft	Final	Milestone Date	Responsible Organization
Publish article in <i>Technology Transfer</i>	3/16/2011	3/21/2011	4/8/2011	OIS/WCSG
Post Redesign banner highlight & video to internal site			4/12/2011	WCSG
Issue Network Announcement	3/16/2011	4/8/2011	4/12/2011	WCSG

AM/87

Post Redesign video to current public site, along with blog posting* and Home Page highlight			4/12/2011	OPA (Blog) WCSG (Video & Highlight)
Issue press release*	[OPA]	[OPA]	4/18/2011	OPA
Submit NRC Daily Note	4/11/2011	4/15/2011	4/18/2011	WCSG
* Holly Harrington will write the blog posting and press release.				

Please let me know if you need any additional information.

Paula

From: Landau, Mindy
Sent: Wednesday, April 06, 2011 2:11 PM
To: Harrington, Holly; Hayden, Elizabeth; Garrity, Paula; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Ellmers, Glenn; Rakovan, Lance; Medina, Veronika
Subject: Re: Blog posting and Press Release for the Public Site Redesign

I would rather you wait until Thursday since the Reporter isn't published until Wed. afternoon

Sent from my NRC Blackberry
Mindy Landau
202-365-6337
Mindy.Landau@nrc.gov

From: Harrington, Holly
To: Landau, Mindy; Hayden, Elizabeth; Garrity, Paula; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Ellmers, Glenn; Rakovan, Lance; Medina, Veronika
Sent: Wed Apr 06 14:07:25 2011
Subject: RE: Blog posting and Press Release for the Public Site Redesign

Sure. We can put it up Wednesday afternoon. Would that be OK?

From: Landau, Mindy
Sent: Wednesday, April 06, 2011 12:47 PM
To: Hayden, Elizabeth; Garrity, Paula; Harrington, Holly; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Ellmers, Glenn; Rakovan, Lance; Medina, Veronika
Subject: RE: Blog posting and Press Release for the Public Site Redesign

We are planning an NRC Reporter article next Wednesday, April 13. Can we hold off on the blog posting until after that occurs?

Mindy

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 12:41 PM
To: Garrity, Paula; Harrington, Holly; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Ellmers, Glenn; Rakovan, Lance; Landau, Mindy; Medina, Veronika
Subject: RE: Blog posting and Press Release for the Public Site Redesign

We need OIS corrections of inaccuracies only in the press release. The Chairman's office approves all press releases. We will issue it Monday, April 18.

Also, do you have a revised/updated Comm Plan with dates and offices responsible?

Lance or Veronika will handle a network announcement for issuance next week and get a story in the NRC Reporter. (No yellow announcement)

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: Garrity, Paula
Sent: Wednesday, April 06, 2011 11:24 AM
To: Harrington, Holly; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth
Subject: RE: Blog posting and Press Release for the Public Site Redesign

Hi Holly,

I copied Ben Partlow on my message to you earlier this morning. He's coordinating the OIS review/approval of the press release for the Redesign.

Ben, please circulate the attached edited version, rather than the one you received from Holly on Monday, and send Holly the approved draft by this Friday.

For the Redesign video, please link to <http://www.nrc.gov/video/public-site-redesign.wmv> in the Blog posting for viewing outside the agency. Please send us the blog content when you're ready, and we'll post live on April 12th.

Thanks,

Paula

From: Harrington, Holly
Sent: Wednesday, April 06, 2011 9:38 AM
To: Garrity, Paula; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth
Subject: RE: Blog posting and Press Release for the Public Site Redesign

Paula – these are good edits, but since you'd already looked at it, I sent a "final" copy directly to the OIS person apparently responsible for actually signing off on it. Can you coordinate this with whomever in OIS is signing off on it and get me ONE version with edits approved by everyone. I can then get it onto the EDO and Chairman. Once I have approved press release language, I'll craft the blog post for Darren. I do not intend to send the blog post around for concurrence since it will be based on already approved language.

I will only need the link to the video to include in the blog post.

From: Garrity, Paula
Sent: Wednesday, April 06, 2011 5:42 AM
To: Harrington, Holly; Partlow, Benjamin
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth
Subject: RE: Blog posting and Press Release for the Public Site Redesign

Hi Holly,

The attached file highlights my suggested changes. You may also receive additional edits from OIS management.

Please note that we're scheduled to post the Blog on **April 12th**, although the press release won't be issued until April 18th. Please send us the blog content as soon as Darren signs off.

Hope this helps,

Paula

From: Harrington, Holly
Sent: Monday, April 04, 2011 2:53 PM
To: Partlow, Benjamin
Cc: Garrity, Paula
Subject: RE: Blog posting and Press Release for the Public Site Redesign

Can I get it back before the end of the week? It still needs EDO and Chairman approval and needs to go out the 18th.

From: Partlow, Benjamin
Sent: Monday, April 04, 2011 2:50 PM
To: Harrington, Holly
Cc: Garrity, Paula
Subject: RE: Blog posting and Press Release for the Public Site Redesign

Hi Holly,

If you'd like to send me the final version, I can take care of the OIS approval – when do you need it?

Ben Partlow
Section Chief
OIS/IRSD/IMB/CMS
T02-F08
o-301.415.8444
c-240.668.4236



From: Garrity, Paula
Sent: Monday, April 04, 2011 11:36 AM
To: Partlow, Benjamin

Cc: Garrity, Paula

Subject: FW: Blog posting and Press Release for the Public Site Redesign

Ben,

Could you please respond to Holly's question. I'm not sure how high this needs to go.

Thanks,

Paula

From: Harrington, Holly

Sent: Friday, April 01, 2011 9:12 AM

To: Garrity, Paula

Subject: RE: Blog posting and Press Release for the Public Site Redesign

I have a final version of the press release to put through formal approval. Who is OIS needs to be the one to sign off on it?

From: Garrity, Paula

Sent: Thursday, March 31, 2011 10:32 AM

To: Harrington, Holly; Goldberg, Francine; Main, Jeffrey

Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin

Subject: RE: Blog posting and Press Release for the Public Site Redesign

All references to Really Simple Syndication (RSS) feeds were removed from the latest version of our Redesign Comm Plan and all related communications.

Jeffrey/Jun, please verify my understanding that RSS should **not** be mentioned in the press release or blog posting.

Holly, if it is included, it should be identified as Really Simple Syndication. I'd also recommend the following edits:

- Large drop-down menus assists navigation.

And...

Additional improvements to the site are planned for the future, including a simplified site structure and even more streamlined navigation system.

Also, **Jun**, do we really want to say "The redesign, in progress for more than three years" or should it be 18 months?

Thanks,

Paula

From: Harrington, Holly

Sent: Thursday, March 31, 2011 9:57 AM

To: Goldberg, Francine; Garrity, Paula
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting and Press Release)

Language taken directly from information I received, so I await clarification from someone in the know.

From: Goldberg, Francine
Sent: Thursday, March 31, 2011 9:52 AM
To: Harrington, Holly; Garrity, Paula
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting and Press Release)

Holly –

This looks good, but I had a question on the reference to RSS.

Paula –

Are we doing RSS? I thought that had been delayed. Good news if we are.

Fran

From: Harrington, Holly
Sent: Thursday, March 31, 2011 9:29 AM
To: Garrity, Paula
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin; Goldberg, Francine
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting and Press Release)

Attached is the press release. The blog post will use similar language with the link to the video. If anyone sees any problem with this, let me know. It'll then go to EDO and Chairman for final approval.

Holly

From: Garrity, Paula
Sent: Thursday, March 31, 2011 8:54 AM
To: Harrington, Holly
Cc: Garrity, Paula; Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin; Goldberg, Francine
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting and Press Release)

Hi Holly,

As promised, I'm resending the *Technology Transfer* article for the redesign, which should give you some good material for the Blog posting and Press Release. Debbie plans to publish the Spring issue of *Technology Transfer* sometime between today and next Friday.

Please be sure to change the link to the Redesign video before you finalize the Blog posting. The link should point to <http://www.nrc.gov/video/public-site-redesign.wmv> for viewing outside the agency.

Based on the latest revision of our Redesign Comm Plan, we're scheduled to post the Blog on April 12th, along with a Home page Highlight with an internal link to the video overview. We'll issue the related Network Announcement the same day, and we'll post the following banner highlight to the internal site with links to the video and your Blog posting. Your press release should follow on April 18th to officially unveil the redesigned site, and we'll add a link to that press release from our Open Gov site.



Please let me know if you have any concerns with this planned timeline.

Hope this helps,

Paula

From: Garrity, Paula
Sent: Thursday, March 24, 2011 11:36 AM
To: Harrington, Holly
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting)

No problem, Holly. I understand completely. I'll resend on March 31st. That should give you plenty of time to prepare the Blog posting for release on April 12th.

Have a great day!

Paula

From: Harrington, Holly
Sent: Thursday, March 24, 2011 11:29 AM
To: Garrity, Paula
Cc: Hoffman, Joan; Lee, Jun; Hayden, Elizabeth; Partlow, Benjamin
Subject: RE: Technology Transfer article for the Public Site Redesign (input for Blog posting)

Paula – Due to our overwhelming focus on the Japan events and my inability to focus on anything else for the time being, can you resend this information to me at the end of the month? At that time, hopefully, I'll have the brain space to update the press release and write the blog post . . .

Thank you for understanding.

Holly

Subject:

IT/IM Resources: Deployment of Public Web Site Redesign on April 15–18, 2011
[Please do not repeat this subject line in the body of the announcement.]

Announcement:

On the evening of **April 15, 2011**, the Office of Information Services (OIS) will deploy the **Public Web Site Redesign** with a modern look-and-feel, streamlined navigation, and rich features and functionality to enhance the experience and satisfaction of site visitors. The NRC will then officially unveil the redesigned site on **April 18, 2011**, after verifying the integrity of its content, which comprises more than 45,000 Web pages and countless documents and high-value datasets. For additional information, see the [video overview](#) of the redesign, as well as the related posting on the [NRC Blog](#).

Impact:

This redesign is primarily intended for our public Web site visitors, and the staff is sensitive to the time and effort that our frequent visitors have invested in learning to navigate the site. Consequently, the redesign preserves the site's existing content and functionality, while reformatting or reorganizing information to enhance usability. In addition, wherever possible, the redesign maintains the same or similar buttons and links to ensure a seamless transition. Where significant organizational changes are needed to enhance usability and simplify navigation, such changes will be phased in over time (following this initial redesign), consistent with best practices in Web design.


NRC staff will experience little or no impact as a result of this redesign, beyond the following considerations:

- If you interact with the public, you may encounter additional questions related to the public site redesign. If so, please invite the public to use our online comment form to [Contact Us](#).
- All other NRC staff are encouraged to explore the redesigned site and become familiar with its rich new features. As always, we welcome your feedback and invite you to send your comments and suggestions to the [Web Content Services Group](#).

Contact:

[Web Content Services Group](#), 301-415-1337

— by Paula A. Garrity

 **What brought about this redesign?** As the centerpiece of NRC communications, the public Web site is our most visible and most accessed source of information about the agency and its mission. For that reason, we have focused our efforts over the past 10 years on maintaining and enhancing the site content, which comprises more than 45,000 Web pages and countless documents and high-value datasets. Meanwhile, Web technologies have continued to evolve, site visitors have become increasingly “Web savvy,” and the appearance and usability of our public site have taken a back seat to information quality.

- Redesign the site to make it more user-friendly and incorporate current Web technologies.
- Maximize usability so that site visitors can easily find the information they seek.
- Employ best practices in Web design.
- Implement new features to facilitate communication with site visitors.
- Reflect the NRC's independent role and its breadth of responsibilities, while showcasing the safety and protection the agency provides citizens.

What are some notable features of the redesigned site?

The use of similar fonts, consistent color schemes, and streamlined navigation elements unifies the design and reduces the perceived clutter and complexity.

[illegible]

There's persistent navigation at the top and bottom of each page to aid you as you move through the site, as well as consistent methods

for communicating with the agency. The "Electronic Reading Room" is now labeled "NRC Library," and still contains all of its content plus multimedia from the Photo and Video Gallery.

For additional information, see the [video overview](#) of the redesign, and keep an eye out for a related posting on the NRC Blog.

Communication Plan for the Redesign of the NRC's Public Web Site

(Rev. 2, March 16, 2011)

Purpose and Objectives

This communication plan describes the methods and tools that the staff of the U.S. Nuclear Regulatory Commission (NRC) will use to keep internal and external stakeholders informed about and involved in the impending redesign of the agency's public Web site. As such, this plan has the following objectives:

- Communicate the impetus, goals, and process for the redesign.
- Engage stakeholders and encourage their participation in selected project activities.
- Prepare site visitors for the transition to the redesigned site by acquainting them with its new organization, navigational features, and enhanced search capabilities.

Background

The NRC will redesign the agency's public Web site to meet the needs of our site visitors and improve their experience. This redesign is intended to make the site the first place people go to find information on topics related to radiation and nuclear safety. The staff initiated this activity in response to an NRC-sponsored study by Information Experts, which concluded early in calendar year 2007. That study involved a series of focus groups of residents living near four U.S. nuclear power plants, as well as nuclear energy activists, to obtain an understanding of how the American public perceives the NRC.

On the basis of that study, the Commission directed the staff to provide a course of action to ensure that the agency's communications initiatives (including the public Web site) incorporate the recommendations conveyed in the Information Experts' report, entitled "Gauging Public Perception: External Focus Group Findings, Analysis, and Communications Recommendations for the U.S. Nuclear Regulatory Commission." The staff subsequently transmitted its action plans as enclosures to COMSECY-08-0013, "Action Plans Regarding Web Redesign and Publication Improvements," dated March 28, 2008. Specifically, the Action Plan for Redesign of the Public Web Site, developed by the Office of Information Services (OIS), detailed a process to achieve the following objectives:

- Redesign the site to meet the identified needs of internal and external site visitors, and provide a means for hosting all publicly available NRC Web content:
- Provide information in plain language.
- Maximize usability so that site visitors can find the information they seek, and be satisfied with their experience.
- Implement new features to facilitate communication with site visitors.
- Reflect the NRC's independent role and its breadth of responsibilities, while showcasing the safety and protection the agency provides citizens.
- Employ best practices in Web design.

The Commission approved the staff's recommendations in the related staff requirements memorandum (SRM), dated June 4, 2008, stating that the staff should "adopt a proactive approach to communications to clarify the NRC's independent role, and showcase the safety and protection the agency provides citizens." Additionally, the SRM provided the following direction:

- The staff should coordinate these improvement efforts with the Office of Public Affairs (OPA). OPA should have the lead for the basic design of the home page, while OIS should have the lead for implementing any Web redesign. OPA should have editorial input to the site's content, while all staff should continue to provide specific subject matter content consistent with their expertise.
- OIS should continue working toward the development of federated search engines, which would allow site users to look across databases such as the Next Generation Agencywide Documents Access and Management System (ADAMS) and other agency databases, as described in the IT Infrastructure Plan, and as appropriate.
- The staff should consider maintaining some of the same or similar buttons and links so that those stakeholders who have invested their time in learning to navigate the site don't have to start over.

In order to meet these goals, the OIS Web Content Services Group (WCSG) will support the Redesign Steering Group (led by OPA). The Steering Group, in turn, will validate the goals of the redesign and communicate to other offices and stakeholders for concurrence. In addition, OIS/WCSG will implement the redesign through two separate contract phases. The first phase will focus on the usability initiative, which will involve various requirements gathering activities to highlight opportunities to improve the experience of site visitors. The second phase will use the results from the usability initiative to redesign the public Web site and then implement and test the usability enhancements, communication features, and improved search capability. The Redesign Steering Group concurred on this direction to avoid any conflict of interest that could result from having a single contractor perform both tasks.

Key Messages

- (1) The NRC is upgrading and redesigning its public Web site to make it more user-friendly and to incorporate current Web technologies.
- (2) The redesign will improve the navigation, content, and accessibility of the site, enabling users to more quickly locate information.
- (3) The redesign will add features like Web update email subscriptions and enhanced email list service to enable NRC stakeholders to stay informed of updated content.
- (4) The NRC evaluated its existing site through focus groups, surveys, and usability testing, involving both agency staff and the public, and will test the redesign in a similar manner.
- (5) The current content will be preserved, but information will be reformatted and/or reorganized to enhance usability.
- (6) The redesign is expected to be completed in early- to mid-2011, and will mark the beginning of continuous, incremental improvements to ensure that the site remains fresh, appealing, and informative to NRC stakeholders.

Stakeholders

Stakeholders affected by the redesign and addressed by this plan encompass all of the NRC's internal and external audiences who frequent the agency's public Web site. Of these audiences, the general public comprises the primary stakeholder group. Others include NRC licensees; domestic and international industry organizations; standards groups; public interest groups; Congress and other Federal, State, and local government agencies in the United States, as well as foreign governments; Tribal organizations; academic institutions and their teachers and students; libraries and research facilities (including the National Laboratories); and the NRC staff.

Key internal and external stakeholders (both individuals and groups) will be further identified through meetings with the Redesign Steering Group.

Communication Team

Name	Office	Role	Phone Number
Elizabeth A. Hayden	OPA	Redesign Steering Group (Chair)	301-415-8200
Holly M. Harrington	OPA	Redesign Steering Group	301-415-8203
Lance J. Rakovan	OEDO	Redesign Steering Group	301-415-2589
Neil A. Sheehan	Region 1	Redesign Steering Group	610-337-5331
Francine F. Goldberg	OIS	Redesign Steering Group (consultant basis)	301-415-6921
Joan M. Hoffman	OIS/IRSD/IMB	WCSG	301-415-7194
Jeffrey D. Main	OIS/IRSD/IMB	WCSG	301-415-6845
Jun S. Lee	OIS/IRSD/IMB	WCSG	301-415-1337
Sally A. Hardy	OIS/IRSD/IMB	WCSG	301-415-5607
Paula A. Garrity	OIS/IRSD/IMB	WCSG	301-415-5960

Communication Tools

The Redesign Steering Group will use the following tools to communicate the "key messages" to internal and external stakeholders:

- Redesign SharePoint Site (internal)
- Briefings (NRC Senior Management, IT Roadmap Working Group, Communication Council, Commissioners' Technical Assistants)
- EDO Monthly Management Meetings
- EDO Daily Notes
- Email and/or Internal Memoranda
- "NRC Reporter" and "Technology Transfer" Newsletters (internal)
- Network Announcements (internal)
- Redesign Video on Internal and Public Web Sites
- NRC Blog (external)
- Press Release (external)

Communication Timeline

Activity	Responsible Organization	Milestone Date/ Frequency*
Develop <u>Redesign SharePoint site</u>	WCSG	Completed
Brief OIS Senior Management	WCSG	Biweekly
Brief IT Roadmap Working Group	WCSG	As needed
Brief Communication Council	Redesign Steering Group	As needed
Publish article in <i>NRC Reporter</i>	WCSG	9/30/2009
Conduct interviews and usability testing with internal stakeholders	Redesign Steering Group	Q1, FY 2010
Brief CIO	WCSG	9/21/2010
Brief Chairman's Chief of Staff	WCSG	9/27/2010
Brief CIO	WCSG	3/2/2011
Brief Office Directors at EDO Monthly Management Meeting	WCSG	3/18/2011
Brief Commissioners' Technical Assts.	WCSG/OPA	3/21/2011
Publish article in <i>Technology Transfer</i>	OIS/WCSG	4/8/2011
Post Redesign banner highlight & video to internal site	WCSG	4/12/2011
Issue Network Announcement	WCSG	4/12/2011
Post Redesign video to current public site, along with blog posting and Home Page highlight	OPA (Blog) WCSG (Video & Highlight)	4/12/2011
Deploy the redesigned site	WCSG	4/18/2011**
Issue press release	OPA	4/18/2011
Submit NRC Daily Note	WCSG	4/18/2011
* Milestones beyond March 21, 2011, have been delayed as a result of the crisis in Japan.		
** OIS will deploy the redesigned site on the evening of April 15, 2011; April 18, 2011, is the first business day on which the redesigned site will be available to the public.		

Questions and Answers

Q: Why is the NRC redesigning its Web site?

- A:** The NRC initiated the redesign in response to an agency-sponsored study, conducted by Information Experts, which concluded early in calendar year 2007. That study involved a series of focus groups of residents living near four U.S. nuclear power plants, as well as nuclear energy activists, to obtain an understanding of how the American public perceives the NRC. On the basis of that study, the Commission directed the staff to provide a course of action to ensure that the agency's public Web site reflects the recommendations conveyed in the Information Experts' report, entitled "Gauging Public Perception: External Focus Group Findings, Analysis, and Communications Recommendations for the U.S. Nuclear Regulatory Commission." The staff subsequently developed its Action Plan for Redesign of the Public Web Site, to achieve the following goals:
- Redesign the site to make it more user-friendly and incorporate current Web technologies.
 - Provide information in plain language.
 - Maximize usability so that site visitors can find the information they seek, and be satisfied with their experience.
 - Implement new features to facilitate communication with site visitors.
 - Reflect the NRC's independent role and its breadth of responsibilities, while showcasing the safety and protection the agency provides citizens.
 - Employ best practices in Web design.

Q: Does the NRC hope the redesign will increase user satisfaction?

- A:** Precisely. The primary intent of the redesign is to make the NRC's public Web site the first place people go to find information on topics related to radiation and nuclear safety. Toward that end, the redesign is intended to increase user satisfaction in the following ways:
- Make the site more user-friendly and incorporate current Web technologies.
 - Provide information in plain language.
 - Maximize usability so that site visitors can find the information they seek, and be satisfied with their experience.
 - Implement new features to facilitate communication with site visitors.

Q: When did the redesign start, and when will it be completed?

- A:** On the basis of its Action Plan for Redesign of the Public Web Site, dated March 28, 2008, the staff anticipates that the content evaluation and usability assessment (Phase 1) will begin in September 2009, and produce design recommendations by April 2010. The implementation of the public Web site redesign (Phase 2) will begin in February 2010, and its completion in early- to mid-2011 will mark the beginning of continuous, incremental improvements to ensure that the site remains fresh, appealing, and informative to NRC stakeholders.

Q: Is the site being redesigned by an external company?

A: In Phase 1, the NRC staff will work with an external company to obtain expert assistance in assessing and testing the content, usability, and accessibility of the existing public Web site; documenting its strengths, weaknesses, and opportunities for improvement; and recommending specific enhancements to the site organization, layout, and user interface. Similarly, in Phase 2, the staff will work with a second external company to obtain expert assistance in implementing those recommendations to redesign and upgrade the site. The NRC has decided to separate these two efforts to ensure that the implementation of the redesign is entirely independent from the usability assessment, and avoid any conflict of interest that could result from having a single contractor perform both tasks.

Q: How much will the redesign cost?

A: The NRC anticipates that the content evaluation and usability assessment (Phase 1) will cost approximately \$300K, while the implementation (Phase 2) will cost approximately \$500K, for a total redesign cost of approximately \$800K.

Q: When was the last time the Web site was redesigned?

A: In 2001, the NRC staff completed an extensive redesign of the public site, focusing on timeliness, completeness, and accuracy of information; ease of navigation; and compliance with the Americans with Disabilities Act. In so doing, the staff solicited the views of external stakeholders and usability experts, compared the existing site to best practices and other highly-rated sites, and adopted the following objectives for the redesign:

- Provide information that enhances the public's understanding of NRC's mission, goals, and performance.
- Increase public confidence in the NRC by providing information that enhances the ability of stakeholders to participate effectively in the regulatory process.
- Ensure the timeliness, completeness, and accuracy of information at the site.
- Make it easy to find desired information.
- Make doing business with the NRC more efficient and effective by providing easy access to necessary information and tools for conducting business electronically via the Web.

Since that time, the NRC has continued to incorporate incremental enhancements to both the design and content of the public site.

Q: How did the NRC decide on the redesign, and will the agency obtain public input?

A: From November 2006 through January 2007, Information Experts conducted 10 focus groups to obtain an understanding of how the American public perceives the NRC. These included eight in-person sessions and two teleconferenced sessions, involving residents living near four U.S. nuclear power plants, as well as nuclear energy activists. A total of 82 people participated in this study, which resulted in the Information Experts' report, entitled "Gauging Public Perception: External Focus Group Findings, Analysis, and Communications Recommendations for the U.S. Nuclear Regulatory Commission." Similarly, during Phase 1, the NRC's assessment team will analyze the NRC-supplied survey data and usability audit reviews (UARs) to identify the demographics of site users, and assess their perceptions of the site's strengths and weaknesses. In addition, the assessment team will conduct usability testing with a pool of test subjects representing the spectrum of site visitors, and the test results will form the basis for the team's redesign recommendations.

Q: Will internal stakeholders have the same degree of involvement in this redesign as in the 2001 redesign?

A: No. The agency focused its extensive 2001 redesign on providing information to enhance the public's understanding of NRC's mission, goals, and performance, as well as the public's ability to participate effectively in the regulatory process. For that reason, the success of the redesign hinged on the involvement of internal subject matter experts who could ensure the timeliness, completeness, and accuracy of information at the site. By contrast, the current redesign will focus on maximizing the usability and accessibility of the site so that site visitors can easily find the information they seek.

Because this is primarily an exercise in implementing current Web technologies and best practices in Web design, this redesign will not require the same degree of internal stakeholder involvement. Instead, the NRC's assessment team will analyze the NRC-supplied survey data and usability audit reviews (UARs) to identify the demographics of site users, and assess their perceptions of the site's strengths and weaknesses. In addition, the assessment team will conduct usability testing with a pool of test subjects representing the spectrum of site visitors, and the test results will form the basis for the team's redesign recommendations.

Q: Does the redesign mean that current visitors will have to learn to use the site all over again?

A: No. The redesign is intended to enhance the experience and satisfaction of visitors to the NRC's public Web site, and the staff is sensitive to the time and effort that our frequent visitors have invested in learning to navigate the site. Commissioner Svinicki's comments on COMSECY-08-0013 included the following explicit guidance:

The NRC has attracted, over the years, a community of deeply involved and very knowledgeable stakeholders. While providing more content directed to the general public is an important goal, and will strengthen the NRC's public outreach, any redesign of the website must not lose sight of the needs of our most committed and involved stakeholders.

This community of stakeholders will expect — and we must preserve — continued access to the highly technical content to which they have become accustomed. Ease of access to this content is also essential. Specifically, I believe consideration should be given to maintaining some of the same or similar buttons and links so that those stakeholders who have invested their time in learning to navigate the NRC website don't have to start over. Simply put, let's not frustrate our website's most dedicated, existing users.

Consequently, the redesign will preserve the existing content and functionality of the site, while reformatting or reorganizing information to enhance usability. In addition, wherever possible, the redesign will maintain the same or similar buttons and links so that those stakeholders who have invested their time in learning to navigate the site don't have to start over. Where significant organizational changes are needed to enhance usability and ease of navigation, such changes will be phased in over time (following the initial redesign), consistent with best practices in Web design.

Q: How many users visit the NRC's Web site?

A: To ensure the privacy of our stakeholders, the NRC does not track unique Internet Protocol (IP) addresses in a manner that would enable us to determine the actual number of visitors to our public Web site. Nonetheless, the NRC does gather statistics regarding the number of individual page access requests, as well as site access by country. On the basis of those statistics, the NRC's public Web site receives approximately 2.2 million page requests per month. These requests originate from approximately 380,000 entities (individuals, as well as public and private organizations), suggesting that each visit involves access to approximately 6 individual Web pages (in HTML or PDF format). In general, the vast majority of these requests originate within the United States.

Q: Does the NRC hope the redesign will increase Web traffic?

A: Not exactly. The primary intent of the redesign is to make the NRC's public Web site the first place people go to find information on topics related to radiation and nuclear safety. Achieving this intent could potentially increase traffic to the site, but that is not our goal. Rather, the NRC initiated this redesign primarily to achieve the following user-centered goals:

- Make the site more user-friendly and incorporate current Web technologies:
- Provide information in plain language.
- Maximize usability so that site visitors can find the information they seek, and be satisfied with their experience.
- Implement new features to facilitate communication with site visitors.

Q: What are some notable new features of the redesigned site?

A: As part of the redesign, the NRC will implement current Web technologies to improve the navigation, content, and accessibility of the site, thereby enabling users to more quickly locate information on topics of interest related to radiation and nuclear safety. The agency will also implement new features to facilitate communication with site visitors. In particular, these will include an email subscription service to enable stakeholders to receive notices of new Web content related to user-selected topics, and an enhanced list service to enable stakeholders to subscribe to specific types of published documents and notifications of agency activities.

Riley (OCA), Timothy

From: NRC Daily Notes [EDO.GroupAccount@nrc.gov]
Sent: Wednesday, April 13, 2011 4:00 PM
To: EDO GroupAccount
Cc: Pena, Alex
Subject: New NRC Daily Notes for April 13, 2011

~~OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION~~

Daily Notes for April 13, 2011

NRR

~~(OUO-SH)~~

By letter dated April 10, 2011, Pacific Gas and Electric Company (PG&E) requested the NRC delay issuance of the renewed operating licenses until after PG&E has completed 3-D seismic studies and submitted a report to the NRC. This decision was made in light of recent events at the Fukushima Daiichi Power Plant and the considerable public concern regarding the need to assure seismic safety at Diablo Canyon Power Plant (DCPP). The seismic studies were approved and funded by the California Public Utilities Commission, including 3-D seismic studies recommended by the California Energy Commission. PG&E has stated that the 3-D seismic studies will be completed, and a report addressing the results will be issued, as soon as possible after completing the analysis of the data and no later than December 2015. The staff is currently assessing the impacts this may have on the license renewal process and schedule.

OEDO

~~(OUO-SH)~~

On April 13, OIG is scheduled to hold an exit conference with NRC staff on the Audit of NRC's Oversight of Security of Independent Spent Fuel Storage Installations.

~~(OUO-SH)~~

On April 13, OIG is scheduled to hold an entrance conference on the Audit of NRC's Oversight of Tritium Production at Commercial Nuclear Reactors.

RI

~~(OUO-SH)~~

On April 14, the Regional Administrator, the Regional State Liaison Officer, and the Regional Counsel will meet with the New Jersey Nuclear Review Task Force, which was formed in response to the recent events in Japan. The task force is led by Department of Environmental Protection Commissioner Robert Martin. The purpose of the meeting is to exchange information regarding each organization's actions in response to the events at Fukushima.

Daiichi.

~~(OUO-SII)~~

On April 11, Region I received information from the Massachusetts Department of Public Health regarding radiological surveys of the former Springfield Armory complex in Springfield, MA. Initial surveys have been completed of the areas initially identified by the Army where depleted uranium (DU) ammunition was used. No evidence of DU contamination was found. MA DPH plans to collect confirmatory soil samples from a sloped area located in the former target range in the near future. MA DPH is also awaiting completion of the Army's record search to identify any additional areas which may contain depleted uranium and need to be surveyed.

RIII

~~(OUO-SII)~~

On April 14, Region III and HQ Staff will conduct government outreach meetings with local elected officials and government office directors from three counties, States of Minnesota and Wisconsin, and the Prairie Island Indian Community on the Prairie Island end-of-cycle performance assessment. A FEMA Region V representative will be in attendance at the meetings.

RIV

~~(OUO-SII)~~

On April 16, at 12:00 p.m. PDT, San Luis Obispo Mothers for Peace will conduct a demonstration against the Diablo Canyon Power Plant, with a theme of "No More Nuclear Victims." The demonstration will take place at the Avila Pier in Avila Beach, CA, about seven miles from the plant at the entrance to the Owner Controlled Area. Participants are expected to carry signs pertaining to seismic issues, license renewal, as well as the Three Mile Island, Chernobyl and Fukushima Daiichi nuclear power plant accidents.

~~(OUO-SII)~~

On April 15, Wolf Creek Generating Station will provide a tour of their facility to Major General Lee Tafari, the Adjutant General of Kansas, and representatives from Coffey County and the Kansas Department of Health. Kansas Governor Sam Brownback may also attend. Interaction with the resident inspectors is not expected.

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Riley (OCA), Timothy

From: CQ.com Alert [CQCustomAlerts@cq.com]
Sent: Wednesday, April 13, 2011 5:28 PM
To: Riley (OCA), Timothy
Subject: Daily Scrub

CQ.com E-MAIL ALERTS



More than 110 new faces on the Hill.
And that's just Congress.

COMBINED ALERT: Daily Scrub

CUSTOM ALERT: Enegy Generic

Description: All Energy/Environmental Issues

created by tim.riley@nrc.gov

2 documents found

[Landrieu Wants BP Fines Funneled to Coastal Communities](#)

CQ Today Online News (4/13/2011, 3:26 p.m.; 500 words)

[EPA Riders May Sit Out Debt-Ceiling Fight as GOP Leaders Reset Priorities](#)

CQ Today Print Edition (4/12/2011, 7:42 p.m.; 685 words)

CUSTOM ALERT: Energy Top Docs

created by tim.riley@nrc.gov

4 documents found

[Letter to the World Bank from Sen. Kerry Regarding Overhaul of Energy Sector Strategy](#) (PDF)

Sen. John Kerry, D-Mass. Correspondence

Directed to World Bank (IBRD/IDA)

Subjects: Energy; Foreign Policy; Transportation & Infrastructure

[Text](#)

CQ Hot Docs, 112th Congress (4/12/2011; Posted: 4/13/2011)

[Hearing on 'The American Energy Initiative'](#) (PDF)

House Energy and Commerce Subcommittee on Energy and Power Memorandum

Subjects: Energy

[Text](#)

CQ Hot Docs, 112th Congress (4/13/2011; Posted: 4/13/2011)

[Rep. Markey, House Dems Push Obama on Strategic Petroleum Reserve](#) (PDF)

Rep. Edward J. Markey, D-Mass. Press Release

Subjects: Energy

[Text](#)

CQ Hot Docs, 112th Congress (4/12/2011; Posted: 4/13/2011)

[Rep. Markey: Republican Spending Plan Kills Wolves Instead of Cutting Pork](#) (PDF)

Rep. Edward J. Markey, D-Mass. Press Release

Subjects: Appropriations; Energy

[Text](#)

CQ Hot Docs, 112th Congress (4/12/2011; Posted: 4/13/2011)

SAVED SEARCH: NRC Word Search

created by tim.riley@nrc.gov

9 documents found

HR 1490

Updated

Sponsor: Lujan (D-N.M.)

Introduced: 4/12/2011

A bill to amend the Radiation Exposure Compensation Act to improve compensation for workers involved in uranium mining, and for other purposes.

CQ BillTrack

Keyword excerpts — up to 5

... HR 1490 Sponsor:

Lujan (D-N.M.) Official Title:

A bill to amend the Radiation Exposure Compensation Act to improve compensation for workers involved in <<uranium>> mining, and for other purposes. Introduced:

April 12, 2011 Committees:

House Education and the Workforce, House Energy and Commerce, House Judiciary Related Bills:

See S ...

S 791

Updated

Sponsor: Udall, T. (D-N.M.)

Introduced: 4/12/2011

Radiation Exposure Compensation Act Amendments of 2011

CQ BillTrack

Keyword excerpts — up to 5

...

Radiation Exposure Compensation Act Amendments of 2011 Official Title:

A bill to amend the Radiation Exposure Compensation Act to improve compensation for workers involved in <<uranium>> mining, and for other purposes. Introduced:

April 12, 2011 Committees:

Senate Judiciary Related Bills:

See HR 1490 Cosponsors:

5 Total (3 Democrats, 2 Republicans) ...

Tax Delinquents Would be Barred From Government Work Under Bills Backed by House Panel

CQ Today Online News (4/13/2011, 3:53 p.m.; 463 words)

Keyword excerpts — up to 5

... bar individuals and companies from receiving federal contracts or grants should they miss tax payments; the other bill (HR 828) would similarly bar <<federal>> <<employees>> from keeping their jobs if they fail to pay taxes.

Both pieces of legislation, sponsored by Rep. Jason Chaffetz , R-Utah., would limit the scope ...

HR 1334

Updated

Sponsor: Norton (D-D.C.)

Introduced: 4/1/2011

Nuclear Weapons Abolition and Economic and Energy Conversion Act of 2011

CQ BillTrack

Keyword excerpts — up to 5

... HR 1334 Sponsor:

Norton (D-D.C.) Brief Title:

<<Nuclear>> Weapons Abolition and Economic and Energy Conversion Act of 2011 Official Title:

A bill to provide for ...

... Weapons Abolition and Economic and Energy Conversion Act of 2011 Official Title: ·

A bill to provide for <<nuclear>> weapons abolition and economic conversion in accordance with District of Columbia Initiative Measure Number 37 of 1992, while ensuring environmental restoration and clean-energy conversion. Introduced:

HR 1491

Updated

Sponsor: Matheson (D-Utah)

Introduced: 4/12/2011

A bill to protect public health and safety should the testing of nuclear weapons by the United States be resumed.

CQ BillTrack

Keyword excerpts — up to 5

... HR 1491 Sponsor:

Matheson (D-Utah) Official Title:

A bill to protect public health and safety should the testing of <<nuclear>> weapons by the United States be resumed.

Introduced:

April 12, 2011 Committees:

House Armed Services, House Education and the Workforce, House Energy and Commerce Cosponsors: ...

HR 909

Updated

Sponsor: Nunes (R-Calif.)

Introduced: 3/3/2011

A Roadmap for America's Energy Future

CQ BillTrack

Keyword excerpts — up to 5

... 909 Sponsor:

Nunes (R-Calif.) Brief Title:

A Roadmap for America's Energy Future Official Title:

A bill to expand domestic fossil fuel production, develop more <<nuclear>> <<power>> and expand renewable electricity, and for other purposes. Introduced:

March 3, 2011 Committees:

House Armed Services, House Energy and Commerce, House Natural Resources, House Oversight ...

HR 1440 | Outline

Sponsor: Maloney, C. (D-N.Y.)

Family Medical Leave Enhancement Act

Bill Text (Version: Introduced in House; 4/8/2011; 1,850 words)

Posted Wednesday, 4/13/2011, 2:28 a.m.

Keyword excerpts — up to 5

... the following new paragraph:

"(14) GRANDCHILD.—The term 'grandchild' means a son or daughter of an employee's son or daughter."

SEC. 4. ENTITLEMENT OF <<FEDERAL>> <<EMPLOYEES>> TO LEAVE FOR PARENTAL INVOLVEMENT AND FAMILY WELLNESS.

(a) Leave Requirement.—Section 6382(a) of title 5, United States Code, is amended by adding at the ...

S 99

Sponsor: Bingaman (D-N.M.)

Introduced: 1/25/2011

American Medical Isotopes Production Act of 2011

CQ BillTrack

Keyword excerpts — up to 5

... S 99 Sponsor:

Bingaman (D-N.M.) Brief Title:

American Medical <<Isotopes>> Production Act of 2011 Official Title:

A bill to promote the production of molybdenum-99 in the United States for medical ...

... Production Act of 2011 Official Title:

A bill to promote the production of molybdenum-99 in the United States for medical <<isotope>> production, and to condition and phase out the export of highly enriched <<uranium>> for the production of medical <<isotopes>> .

Introduced:
January 25, 2011 Committees:
Senate Energy and Natural Resources Cosponsors:
1 Total (1 Republican)
Murkowski, L. (R-Alaska)....

HR 1326

Sponsor: Fortenberry (R-Neb.)
Introduced: 4/1/2011
Furthering International Nuclear Safety Act of 2011
CQ BillTrack

Keyword excerpts — up to 5

... HR 1326 Sponsor:

Fortenberry (R-Neb.) Brief Title:

Furthering International <<Nuclear>> Safety Act of 2011 Official Title:

A bill to underscore the importance of international ...

... Safety Act of 2011 Official Title:

A bill to underscore the importance of international <<nuclear>> safety cooperation for operating power reactors, encouraging the efforts of the Convention on ...

... safety cooperation for operating power reactors, encouraging the efforts of the Convention on <<Nuclear>> Safety, supporting progress in improving <<nuclear>> safety, enhancing the public availability of <<nuclear>> safety information, and for other purposes. Introduced:

April 1, 2011 Committees:

House Foreign Affairs Cosponsors:

2 Total (2 Democrats)

Berman (D-Calif.) Schiff, A. ...

About this alert

Sent April 13, 2011

5:19 p.m. ET

created by tim.riley@nrc.gov

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From: [NRC Announcement](#)
To: [NRC Announcement](#)
Subject: General Interest: Latest NRC Reporter Now Online
Date: Wednesday, April 06, 2011 3:17:20 PM

NRC Daily Announcements



Highlighted Information and Messages



Wednesday April 6, 2011 -- Headquarters Edition

General Interest: Latest NRC Reporter Now Online

General Interest: Latest NRC Reporter Now Online

The latest edition of the [NRC Reporter](#) is now on line, with a story about the Chairman's remarks in Vienna, and an article (with photos) about the origami cranes that many staff are making as a gesture of condolence and support to the people of Japan.

The Reporter is published weekly, on Wednesdays, for the benefit of NRC employees. To help make it a better publication, be sure to send your news, calendar entries, and other material to [Glenn Ellmers](#).



(2011-04-06 00:00:00.0)

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Am/90

From: Burnell, Scott
To: Virgilio, Martin; Powell, Amy; Schmidt, Rebecca; Riley (OCA), Timothy; Hayden, Elizabeth; Brenner, Eliot
Cc: Harrington, Holly; McIntyre, David; Screnci, Diane; Sheehan, Neil; Hannah, Roger; Mitlyng, Viktoria; Chandrathil, Prema; Dricks, Victor; Uselding, Lara
Subject: Statement on Unit 2 core situation
Date: Wednesday, April 06, 2011 3:17:23 PM
Importance: High

Per Marty's instructions, the following is attributable to OPA (or OCA as the case may be), and if asked, reflects consultation with technical experts in the Ops Ctr:

There continues to be a great deal we don't know regarding the situation at Fukushima. One thing we do know with reasonable certainty is that the core of Unit 2 has been damaged. Beyond that, the NRC speculates there are possible leakage paths from the reactor vessel into the drywell that could account for reports of high radiation levels in the drywell. The NRC does not believe the reactor vessel has given way, and we do believe practically all of the core remains in the vessel. These two beliefs drive our continuing recommendation that every available method should be used to add fresh water to the Unit 2 reactor vessel and continue cooling the core.

Am/91

From: Harrington, Holly
To: Burnell, Scott; Hayden, Elizabeth
Subject: RE: FYI
Date: Wednesday, April 06, 2011 3:34:26 PM

Elizabeth Stuckle is still scheduled to attend until lunchtime (through the Japan part of the meeting)

From: Burnell, Scott
Sent: Wednesday, April 06, 2011 3:04 PM
To: Harrington, Holly; Hayden, Elizabeth
Subject: FYI

For what it's worth, I ran into Ed Hackett here in Ops and he confirmed no media interest to this point on the ACRS Japan session tomorrow.

Am/92

From: Ramsey, Jack
To: Hayden, Elizabeth
Subject: FW: FYI - Report
Date: Wednesday, April 06, 2011 3:37:00 PM

FYI, just in case you haven't seen.

From: Abrams, Charlotte
Sent: Wednesday, April 06, 2011 2:08 PM
To: Emche, Danielle; Stahl, Eric; Doane, Margaret; Jones, Andrea; Mamish, Nader; Ramsey, Jack; Henderson, Karen; Fragoyannis, Nancy; Dembek, Stephen; Owens, Janice; Foggie, Kirk
Subject: FW: FYI - Report

FYI

Mike Weber received a call today from the Japanese Embassy regarding the leaked Times article. See his attached response.

From: Weber, Michael
Sent: Wednesday, April 06, 2011 1:34 PM
To: Abrams, Charlotte
Subject: FYI - Report

From: Weber, Michael
Sent: Wednesday, April 06, 2011 1:34 PM
To: 'takashi.inutsuka@mofa.go.jp'
Cc: Borchardt, Bill; 'seiichi.shimasaki@mofa.go.jp'
Subject: RESPONSE - Report

Greetings Mr. Inutsuka,

As I discussed with your colleague Mr. Shimasaki from the Science Section of the Japanese Embassy, we regret that there was reporting in the U.S. press today about an assessment that the NRC prepared for the response to the nuclear emergency at Fukushima-Daiichi. The NRC understood the sensitivity of the information contained in the document and protected it accordingly. If asked by the press about the assessment, we are responding with the following answer:

The March 26 document represented an interim snapshot of what NRC staff and other experts considered as possible conditions inside the damaged units at Fukushima-Daiichi; the document does not reflect our understanding of the current situation. Based on those possible conditions, the NRC staff's recommendations should be considered prudent measures; they are not offered as the only possible solutions. We shared those recommendations with the Japanese operator and regulator of the plants. We understand they are pursuing an alternative set of strategies to control the plants and ensure the safety of the people working at the plants and living nearby. We are working with our counterparts to consider these strategies and explore additional steps that could enhance safety.

We have shared this response with our team in Tokyo, who is assisting Ambassador Roos and cooperating with counterparts in Japan.

Am/93

Regards

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

From: [Burnell, Scott](#)
To: [Smith, Rebecca](#)
Cc: [Brenner, Eliot](#); [Hayden, Elizabeth](#)
Subject: RE: Today's house oversight and investigations report on peach bottom
Date: Wednesday, April 06, 2011 4:23:46 PM

Hi Rebecca;

We've discussed the preliminary SOARCA results at our annual conferences, including this year:

https://ric.nrc-gateway.gov/docs/abstracts/SessionAbstract_58.htm

and in 2009:

<http://www.nrc.gov/public-involve/conference-symposia/ric/past/2009/slides/presentations/wed-400-530-state-of-art-reactor/presentation-format/tinkler-joint-slides.ppt>

<http://www.nrc.gov/public-involve/conference-symposia/ric/past/2009/slides/presentations/wed-400-530-state-of-art-reactor/presentation-format/gaunt-slides.pdf>

The "full" SOARCA report is still being finalized.

Let me check on the 3/26. Thanks.

Scott

From: Smith, Rebecca [mailto:Rebecca.Smith@wsj.com]
Sent: Wednesday, April 06, 2011 4:19 PM
To: Burnell, Scott
Subject: Re: Today's house oversight and investigations report on peach bottom

I don't think so. It is in draft form, right? Is there a copy of soarca draft report available?

Also, we finally got 3/26 NRC status update for Daiichi. Can we get these as produced? Not marked confidential and would help a lot.

Regards,
Rebecca

Sent from my BlackBerry Wireless Device

From: Burnell, Scott
To: Smith, Rebecca
Cc: Brenner, Eliot ; Hayden, Elizabeth
Sent: Wed Apr 06 13:08:35 2011
Subject: RE: Today's house oversight and investigations report on peach bottom
Hi Rebecca;

I understand you've spoken to other folks about SOARCA, do you still need to talk to us?

AM/94

Scott

From: Smith, Rebecca [mailto:Rebecca.Smith@wsj.com]
Sent: Wednesday, April 06, 2011 11:18 AM
To: Burnell, Scott
Cc: Brenner, Eliot; Hayden, Elizabeth
Subject: Today's house oversight and investigations report on peach bottom

Hi, Scott, Eliot and Elizabeth,
We are doing a story about station blackout situations, based on the House subcommittee testimony today.
They presented information on an NRC analysis concerning the vulnerability of Peach Bottom, in a station blackout situation.
Could I get additional comment?

Regards,
Rebecca

Rebecca Smith
Staff Reporter
The Wall Street Journal
415-385-7224

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Wednesday, April 06, 2011 8:10 AM
To: Burnell, Scott
Cc: Brenner, Eliot; Hayden, Elizabeth
Subject:

Good Morning;

Here is the NRC response to the NY Times article:

The March 26 document represented an interim snapshot of what NRC staff and other experts considered as possible conditions inside the damaged units at Fukushima-Daiichi; the document does not reflect our understanding of the current situation. Based on those possible conditions, the NRC staff's recommendations should be considered prudent measures; they are not offered as the only possible solutions. We shared those recommendations with the Japanese operator and regulator of the plants. We understand they are pursuing an alternative set of strategies to control the plants and ensure the safety of the people working at the plants and living nearby. We are working with our counterparts to consider these strategies and explore additional steps that could enhance safety.

If the NRC has any further comment, you'll be informed via e-mail. Thank you.

Scott Burnell

From: Harrington, Holly
To: Hayden, Elizabeth
Subject: RE: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos
Date: Wednesday, April 06, 2011 4:24:23 PM
Attachments: image001.png

Already done

From: Hayden, Elizabeth
Sent: Wednesday, April 06, 2011 4:24 PM
To: Harrington, Holly
Subject: FW: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Can you follow up this?

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: Burnell, Scott
Sent: Wednesday, April 06, 2011 2:42 PM
To: LIA06 Hoc; Hayden, Elizabeth; Harrington, Holly
Subject: RE: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Tom;

I'm otherwise occupied, hopefully Holly or Beth can look them over. Thanks.

Scott

From: LIA06 Hoc
Sent: Wednesday, April 06, 2011 2:39 PM
To: Burnell, Scott
Cc: ET05 Hoc; Brenner, Eliot; Hayden, Elizabeth; LIA02 Hoc; LIA08 Hoc; LIA06 Hoc; OST01 HOC
Subject: FW: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Scott – I have done a quick review of the attached. Few of the questions deal with the NRC role and seems consistent with our position. Commenting on these Q&A seems outside the scope of the EOC role of supporting the OST, although I would offer a “no comment” if pressed. However, this seems an issue that is better handled OPA to OPA (contact information below). If you agree could you please take and handle as a normal course of business.

Thanks

Tom Bergman

AM/95

Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: LIA02 Hoc
Sent: Wednesday, April 06, 2011 2:20 PM
To: LIA06 Hoc; LIA08 Hoc
Subject: FW: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Wednesday, April 06, 2011 2:07 PM
To: LIA01 Hoc; LIA11 Hoc; LIA02 Hoc; LIA03 Hoc
Cc: Kozal, Jason
Subject: Possible SHORT-TERM ACTION (Due COB Today) -- Draft Q&A for Ambassador Roos

Hi there,

USAID has prepared the attached DRAFT Q&As for Ambassador Roos, and the NRC has been given an opportunity to comment. Please let me know if you would like to provide any comments.

Cheers,
Leigh

From: RMTPACTSU_INC
Sent: Wednesday, April 06, 2011 1:47 PM
To: RMTPACTSU_ELNRC
Cc: RMTPACTSU_RM
Subject: FW: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

Leigh,

FYI, we've received this for review. Hopefully your operations center has directly too. I'm having a look now but if you want to make any essential edits as part of the RMT approval process, please let me know.

Regards,

Lily

From: Gustafson, Rebecca (DCHA/OFDA) [mailto:rgustafson@USAID.GOV]
Sent: Wednesday, April 06, 2011 1:16 PM
To: RMTPACTSU_RM
Cc: RMTPACTSU_INC
Subject: FW: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

Made some edits. You guys have any more? (Could you also make sure that the NRC and HHS peeps are seeing these on their end?)

THANKS!

RG

From: Jackson, Gina (LPA/AA)
Sent: Wednesday, April 06, 2011 12:26 PM
To: Gustafson, Rebecca (DCHA/OFDA)
Subject: FW: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

Any issues here?

Thanks,

Gina

Gina Jackson
USAID Press Office
1300 Pennsylvania Ave N.W.
Washington D.C. 20523
phone: (202) 712-1917
fax: (202) 216-3034



From: McKellogg, Kelly E
Sent: Wednesday, April 06, 2011 12:03 PM
To: PA Japan; HullRyde, Leslie CDR OSD PA; Jackson, Gina (LPA/AA); Jensen, Robert R.; Hayden, Caitlin M; Petrovich, Peggy L; CAPRESSREQUESTS; robert.ditchey@osd.mil; almarrah.belk@osd.mil
Cc: EAP-P-Office-DL
Subject: PLEASE CLEAR BY COB: Draft Q&A for Ambassador Roos

All,

Please clear the attached Q&A for use by Amb. Roos in his media engagements next week. Please send us your edits by COB.

Bob and Caitlin – if you feel other agencies should clear this, will you please help us direct this to the right folks?

Thanks,

Kelly McKellogg
Bureau of East Asian and Pacific Affairs
Office of Public Affairs (EAP/P)
202-647-1028

SBU

This email is UNCLASSIFIED.

From: Quade, Christopher P
Sent: Wednesday, April 06, 2011 6:56 AM
To: PA Japan
Subject: Draft Q&A for Ambassador Roos

All,

For your review and clearance, attached please find the draft Q&A document for Ambassador Roos's upcoming (but still TBC) media engagements. As Leslie mentioned in her e-mail, the first such engagement will likely not take place until early next week.

These are the top line messages for the Ambassador to use in his interviews, but they might also be useful for Washington press guidance.

Many thanks,
Christopher

* * * * *

Christopher P. Quade
Deputy Press Attaché
U.S. Embassy Tokyo
米国大使館報道室
Office: 81-3-3224-5300
<http://tokyo.usembassy.gov>

This email is UNCLASSIFIED.

From: OST02 HOC
To: LIA06 Hoc; LIA08 Hoc; LIA04 Hoc; OST03 HOC; OST05 Hoc; LIA09 Hoc; LIA05 Hoc; LIA01 Hoc; LIA11 Hoc; LIA12 Hoc; LIA03 Hoc; LIA10 Hoc; LIA02 Hoc; ET01 Hoc; ET02 Hoc; ET03 Hoc; ET04 Hoc; ET05 Hoc; ET06 Hoc; ET07 Hoc; OST01 HOC; OST02 HOC; OST04 Hoc; LIA07 Hoc; RST01 Hoc; RST01A Hoc; RST01B Hoc; RST02 Hoc; RST03 Hoc; RST04 Hoc; RST05 Hoc; RST06 Hoc; RST07 Hoc; RST08 Hoc; RST09 Hoc; RST10 Hoc; RST11 Hoc; RST12 Hoc; RST13 Hoc; RST14 Hoc; RST15 Hoc; Hoc, RST16; PMT01 Hoc; PMT02 Hoc; PMT03 Hoc; PMT04 Hoc; PMT05 Hoc; PMT07 Hoc; PMT08 Hoc; PMT09 Hoc; PMT10 Hoc; PMT11 Hoc; Hoc, PMT12; PMTERDS Hoc; GIS Hoc
Subject: Protection of Agency Documents in the Operations Center
Date: Wednesday, April 06, 2011 5:01:27 PM

Protection of Agency Documents in the Operations Center

The NRC appreciates the hard work of everyone involved in the Japan response. Your efforts have been extensive and exhaustive and have produced a number of documents that have been used by many people throughout the government. This message is a reminder to carefully respect the markings on all documents and reiterate to everyone receiving them the importance of respecting the nature of the distribution of these documents. For us to be able to make effective decisions only public documents should be released outside of the appropriate distribution channels. Keep up your great work but be mindful of your responsibility as well.

Thank You,
Operations Center

Am/96

From: Hayden, Elizabeth
To: Stuckle, Elizabeth
Subject: RE: review of clips so far
Date: Wednesday, April 06, 2011 5:28:00 PM

New website at <http://irm11r/>

Beth

From: Stuckle, Elizabeth
Sent: Wednesday, April 06, 2011 4:33 PM
To: Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; McIntyre, David
Subject: review of clips so far

I have been through the news clips for April 1 – 6 so far. Attached is my working document with inaccuracies and concerning verbiage so far. I will continue to go through clips when I get back from the meeting tomorrow afternoon.

Am/97

Thematic Concerns Repeatedly Expressed after Japanese Nuclear Incident

1. How can you guarantee that it's not going to happen here?
2. The NRC should do more to protect the public
3. Safety of spent fuel pools versus dry cask storage
4. Re-examination of evacuation zones (EPZs) – are they adequate. Many recommend expanding the EPZs.
5. Re-examination of whether there's sufficient backup power to reactors and to spent fuel pools
6. Fuel pools should be constructed with more safeguards and protection like reactors are.
7. Should there be a moratorium on the construction of new nuclear power plants?
8. Re-examination of what is the safety threshold for radiation amounts. Major fear and misunderstanding of radiation.
9. NRC is in bed with the industry since licensees pay fees to the NRC. They are more concerned about profit than safety.

Inaccuracies and/or Concerning Verbiage

From 4/1 through 4/6 clips (working my way backwards)

NRC Focused On VY Safety, Not Shutdown (Bratboro Reformer VT 4/6)

Robert Bady, Vermont coordinator of the Safe and Green Campaign

Bady said the problem is financial, however. "The NRC tries to maintain the safety of the nuclear reactor while also maintaining the profitability of the nuclear industry," Bady said. "The profitability shouldn't be the NRC's concern. If the NRC put safety before profit, they wouldn't allow a spent fuel pool to be stored seven feet above ground."

He added that through activism, he hopes to effect a change in the NRC that safety be on equal footing of profits. "The NRC is not focusing on the decommissioning of the plant at this time but rather on its continued safe operation," Neil Sheehan, spokesman for NRC said.

NRC: Japanese Crisis Doesn't Support Pulling Oyster Creek's License. (AP 4/6))

Jeff Tittel, director of the New Jersey Sierra Club

"The New Jersey Sierra Club says the NRC has not learned anything from the Japanese disaster," and the group's director, Jeff Tittel, called the NRC "a cheerleader for industry" that "looks the other way when it comes to relicensing."

Concerns Expressed Over NRC Allowing Plants To Increase Output. KVNO-FM Omaha 4/4

Some groups like the Advisory Committee on Reactor Safeguards have voiced concerns at the ease in which the NRC grants permission to increase power. Questions have also been raised about financial motives possibly outweighing safety factors. But Mitlyng said modifications are put into place at the plants in order to accommodate the power increase in several forms.

Professor Calls For End of Nuclear Power. (The Independent 4/5)

Chris Williams, professor at Pace University

...23 of the 104 operational nuclear reactors in the US "are built on the same 1960s design by the same company, General Electric, as the reactors at Fukushima," they "have been recognized to have serious design faults," and "design vulnerabilities...are routinely discovered." Furthermore, many nuclear plants are "on geologically active faults, in coastal locations or close to large sources of fresh water." Finally, Williams argues that nuclear power requires subsidies to be economically practical. Williams argues the reason for nuclear power is to be a justification for researching "the power to destroy life on a planetary scale" and producing plutonium for bombs. He calls for pressuring the government to not new nuclear plants or relicense old ones.

Nuclear Power Said To Not Make Economic Sense (Forbes 4/5)

Cato Institute senior fellows Jerry Taylor and Peter Van Doren

...the current "relatively unshaken" political faith in nuclear power is "unfortunate," as "nuclear power makes no sense from an economic perspective." The electricity produces "is not even remotely competitive in power markets with gas-fired or coal-fired electricity now or in the foreseeable future." Furthermore, there is a high risk of cost overruns. The authors argue, "The political campaign to ram these plants down the market's throat threatens catastrophic harm to both taxpayers and ratepayers."

"Common Ground "program (KCRA-TV Sacramento 4/2)

Rochelle Becker of the Alliance for Nuclear Responsibility

calls the Japanese disaster "a huge game changer for California's nuclear industry," and the segment adds that "critics of the other nuclear industry say that Diablo Canyon and the state's other twin reactors San Onofre in San Diego County are just as vulnerable to earthquakes and tsunami damage as the plants in Japan."

Some Fear 10-Mile Evacuation Zone Plans Do Not Reflect Real-World Risks (Miami Herald 4/3)

Activists and some political leaders say the NRC's evacuation plans "don't reflect real-world risks"

WCBS-TV (New York 4/2)

Tom Syracuse, noted protester

"The Indian Point Power Plant is located near the intersection of two earthquake faults. Nuclear energy cannot be safe. Plutonium can contaminate the environment for hundreds of years. Studies show that New York City could not be evacuated in time."

Indian Point Plant Called Too Dangerous To Continue Operating (Westchester NY 4/2)

Gary Shaw, Indian Point Safe Energy Coalition

...asserts mistakenly that "Indian Point 3 has just been named by the US Nuclear Regulatory Commission as the nuclear reactor in the US that is most likely to suffer reactor core damage due to an earthquake and the stated odds of that happening in any given year are higher than the odds of winning \$100 in the Powerball lottery." Shaw says he is not saying a "catastrophic event will definitely occur," but that one could happen, and "if the worst case happens, the consequences are simply too awful to imagine."

Pasadena CA Weekly (4/1)

Gula, PhD, Southern California Federation of Scientists

"The unfolding nuclear disaster in Japan should put an end, once and for all, to recent calls for a nuclear power 'renaissance' in the US." The crisis instead demonstrates that "nuclear power should be phased out completely." Gula added that it will take "many years" to determine how many deaths and cancers will be caused by radiation releases from the apparent Fukushima plant meltdowns, but the casualties may "eventually exceed those caused by the 1986 nuclear accident at the Chernobyl plant in Ukraine." Gula closes by saying that further development of nuclear power should to be "stopped in its tracks."

The Connecticut Post (4/1)

"...should something cause water to drain from a cooling pool, well, one doomsday scenario has a fire at the Millstone Nuclear Power Station in Waterford causing 29,000 square miles of land to become uninhabitable.."

WVUE-TV (New Orleans, 3/31)

the NRC "issued a report to Congress today suggesting it has concerns with" the natural disaster preparedness of "only three plants in the US." WVUE-TV adds that, according to the NRC, "those plants are in South Carolina, Kansas and Nebraska. NRC workers say the plants are operating safely but they want to conduct a more intense study of them."

From: [Lobsenz, George](#)
To: [Hayden, Elizabeth](#)
Cc: [Brenner, Eliot](#)
Subject: RE: Unit 2 in Japan
Date: Wednesday, April 06, 2011 6:06:35 PM

beth--many thanks

From: Hayden, Elizabeth [mailto:Elizabeth.Hayden@nrc.gov]
Sent: Wednesday, April 06, 2011 6:05 PM
To: Lobsenz, George
Cc: Brenner, Eliot
Subject: Unit 2 in Japan

George,

Here's what we can say about the Unit 2 at Fukushima.

There continues to be a great deal we don't know regarding the situation at Fukushima. One thing we do know with reasonable certainty is that the core of Unit 2 has been damaged. Beyond that, the NRC speculates there are possible leakage paths from the reactor vessel into the drywell that could account for reports of high radiation levels in the drywell. The NRC does not believe the reactor vessel has given way, and we do believe practically all of the core remains in the vessel. These two beliefs drive our continuing recommendation that every available method should be used to add fresh water to the Unit 2 reactor vessel and continue cooling the core.

*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*

AM198

From: Burnell, Scott
To: Hayden, Elizabeth
Subject: Out of Office: U.S. Sees Array of New Threats at Japan's Nuclear Plant
Date: Wednesday, April 06, 2011 6:14:34 PM

I am out of the office and will NOT be checking e-mail. Please call 301-415-8200 if this is urgent.
Thank you.

Am/99

From: Hayden, Elizabeth
To: Harrington, Holly
Subject: RE: Nice to not be the only voice of reason out there
Date: Wednesday, April 06, 2011 6:21:00 PM

amen

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: Harrington, Holly
Sent: Wednesday, April 06, 2011 4:08 PM
To: Brenner, Eliot; Burnell, Scott; Couret, Ivonne; Hayden, Elizabeth; McIntyre, David; Chandrathil, Prema; Dricks, Victor; Hannah, Roger; Ledford, Joey; Mitlyng, Viktoria; Screnci, Diane; Sheehan, Neil; Uselding, Lara
Subject: Nice to not be the only voice of reason out there

<http://thechart.blogs.cnn.com/2011/04/05/cdc-chief-no-risk-to-americans-from-japan-radiation/?hpt=T2>

Am/100