From: Burnell, Scott
To: Benton, Laray; Hayden, Elizabeth; Clark, Theresa; Alvarado, Lydiana; Fisher, Christian; English, Kimberly; Diaz, Marilyn; Billoch, Araceli; Couret, Ivonne
Subject: RE: Update - Japan (Advice for STEM Fair)
Date: Wednesday, March 16, 2011 11:42:00 AM

Just one quick add – AVOID discussing Japan in any detail!!!! If pressed, please use the language from our press releases and refer people to 301-415-8200. Thanks!!!!!

From: Benton, Laray
Sent: Wednesday, March 16, 2011 11:40 AM
To: Hayden, Elizabeth; Clark, Theresa; Alvarado, Lydiana; Fisher, Christian; English, Kimberly; Diaz, Marilyn; Billoch, Araceli; Burnell, Scott; Couret, Ivonne
Subject: FW: Update - Japan (Advice for STEM Fair)
Importance: High

Folks,

I am by no means trying to represent or act in the place of OPA, but in preparation for this STEM Fair I think that the previous Dos/Don'ts sent out before by Beth coupled with the advice indicated below surrounding the Japan crisis would be GREAT to remember and follow as we go and represent the agency this Friday. We can expect to get a lot of questions this weekend on the Japan crisis, but I think if we follow the advice given to us we can survive the STEM fair ☺

LaRay J. Benton

United States Nuclear Regulatory Commission (NRC)
Office of Nuclear Reactor Regulation
Division of Risk Assessment
Accident Dose Branch (AADB)
(301) 415-1088

From: Tate, Travis
Sent: Wednesday, March 16, 2011 9:26 AM
To: Benton, Laray; Blumberg, Mark; Brown, Leta; Duvigneaud, Dylanne; Parillo, John; Tate, Travis; White, Jason
Subject: FW: Update - Japan

FYI...

From: Rodriguez, Veronica
Sent: Wednesday, March 16, 2011 8:55 AM
To: Klein, Alex; Tate, Travis; Harrison, Donnie
Subject: FW: Update - Japan

Fyi – in case you would like to share some of this info with your staff.

From: Rodriguez, Veronica

XXXX-500

Sent: Wednesday, March 16, 2011 8:53 AM
To: Chung, Donald; Circle, Jeff; Ferrante, Fernando; Mitman, Jeffrey; Stambaugh, Margaret; Vail, James; Wong, See-Meng; Zoulis, Antonios
Subject: Update - Japan

Folks,

Yesterday afternoon the BCs attended a First Line Supervisors meeting with the EDO. As you can imagine Japan's events were one of the topics of discussion. The message conveyed basically re-emphasized the items I discussed during our Branch Meeting. Below I'm including a list of highlights. I'll provide more information as it becomes available.

- 9 additional NRC staff members were deployed to Japan. They are acting as part of the U.S. Agency for International Development assistance team. The NRC currently has 11 employees working from the Embassy. Chuck Casto is the lead of the team. More information can be found in the following press release.
- All requests for information should be sent / coordinated through the HOO (301-816-5100). If you receive information and you're not certain the incident response already has it, this should also be forwarded to them.
    - Remember, NRC employees should not be responding to these request personally.
    - If you receive information and you're not certain the incident response already has it, this should also be forwarded to them.
- This is an ongoing crisis for the Japanese and they have primary responsibility for handling it and communicating about it. The NRC will not publicly comment on hour-to-hour developments at the Japanese reactors.
- Key Message: Stay focus on our Mission! Continue to monitor the safety of the U.S NPPs.
- The best sources of information are: NRC press releases and the NRC blog.

--Veronica

From: Burnell, Scott
To: Mitlyng, Viktoria; McIntyre, David
Cc: Harrington, Holly
Subject: RE: AFP questions
Date: Wednesday, March 16, 2011 11:22:00 AM

Not in a position to help right now.

From: Mitlyng, Viktoria
Sent: Wednesday, March 16, 2011 11:18 AM
To: Burnell, Scott; McIntyre, David
Cc: Harrington, Holly
Subject: FW: AFP questions

I have tried to answer these AFP questions in a general way – if the design wasn't safe it wouldn't be in use, we are constantly evaluating new information about safety concern and resolving as necessary, etc. The reporter is dissatisfied and wants more specifics on how the NRC has handled GE Mark 1 containment safety concerns that have been raised through the years and what these concerns are. I don't know if we have the capacity to answer his questions. Please advise.

Also, I am getting more questions such as the one AFP is raising on any details of what our team in Japan is doing, which areas it's reviewing. Are we going to talk about any feedback the agency receives? If not, what is our position on why. If you want me to make up my own answers to these questions, rather than having to ask you, I can. Please advise on this as well.

Thank you.

Vika

From: Paul HANDLEY [mailto:Paul.HANDLEY@afp.com]
Sent: Wednesday, March 16, 2011 10:04 AM
To: Mitlyng, Viktoria
Cc: Charlotte RAAB DE MIRANDA
Subject: AFP questions

Hi Ms Mitlyng,

Thanks for your earlier comments and your contacts. Here are my questions, on the issues that have been raised by the Japan incident:

- What sort of modifications have been required of the GE Mark 1 design since it was first introduced that address the original safety questions around the strength of the containment vessels, the pipes for the torus; the use of MOX, etc?
- Have all of the US plants been upgraded/updated to address these issues, especially the strength of containment?
- Have there been any serious incidents in the US which raised questions about the GE design and structure?
- Would that BWR design be acceptable in a new plant today?
- Does the NRC have any information about how GE Mark 1 plants may or may have not been

XXXX-301

modified around the world to address these issues?

Also, can you give details on how the NRC is helping out in Japan? – how many people have been snet, what specifically they are doing, what their view of the situation is?

Thanks and regards,

Paul Handley
AFP
202 4140682

From: Mitlyng, Viktoria [mailto:Viktoria.Mitlyng@nrc.gov]
Sent: Wednesday, March 16, 2011 10:50 AM
To: Paul HANDLEY
Subject: from NRC

Paul, here is my contact information.

Viktoria Mitlyng
Office of Public Affairs
US Nuclear Regulatory Commission
Region III
Lisle, IL 60532
Tel 630/829-9662
Fax 630/515-1026
e-mail: viktoria.mitlyng@nrc.gov

This e-mail, and any file transmitted with it, is confidential and intended solely for the use of the individual or entity to whom it is addressed. If you have received this email in error, please contact the sender and delete the email from your system. If you are not the named addressee you should not disseminate, distribute or copy this email.

For more information on Agence France-Presse, please visit our web site at http://www.afp.com

From: Beasley, Benjamin
To: Laur, Steven; Burnell, Scott; Manoly, Kamal; Hiland, Patrick; Skeen, David; Stutzke, Martin
Cc: Ferrante, Fernando; Chokshi, Nilesh; Coyne, Kevin; Coe, Doug
Subject: RE: NBC deadline question for NRC on seismic hazard estimates
Date: Wednesday, March 16, 2011 11:18:35 AM

Of course. Scott Burnell has been involved and we are only talking to him, not any reporters.

Ben

From: Laur, Steven
Sent: Wednesday, March 16, 2011 10:54 AM
To: Burnell, Scott; Beasley, Benjamin; Manoly, Kamal; Hiland, Patrick; Skeen, David; Stutzke, Martin
Cc: Ferrante, Fernando; Chokshi, Nilesh; Coyne, Kevin; Coe, Doug
Subject: RE: NBC deadline question for NRC on seismic hazard estimates

I have not looked at the article, but would recommend you get OPA involved at once (and not talk to this reporter without OPA involvement).

Note the timing of this article about seismic risk vis-à-vis the Japanese experience at Fukushima Daiichi and also our Ops Center e-mail saying we will NOT provide information on the Japanese event. While GI-199 is not the Japanese event, we should tread carefully!

Steven A. Laur
NRR Division of Risk Assessment
OWFN 10-C15
(301) 415-2889
steven.laur@nrc.gov

From: Burnell, Scott
Sent: Wednesday, March 16, 2011 9:59 AM
To: Beasley, Benjamin; Manoly, Kamal; Hiland, Patrick; Skeen, David; Stutzke, Martin
Cc: Ferrante, Fernando; Laur, Steven; Chokshi, Nilesh; Coyne, Kevin; Coe, Doug
Subject: RE: NBC deadline question for NRC on seismic hazard estimates

I'm waiting for a technical critique – may hand this off to other OPA once I see it. Thx.

From: Beasley, Benjamin
Sent: Wednesday, March 16, 2011 9:58 AM
To: Burnell, Scott; Manoly, Kamal; Hiland, Patrick; Skeen, David; Stutzke, Martin
Cc: Ferrante, Fernando; Laur, Steven; Chokshi, Nilesh; Coyne, Kevin; Coe, Doug
Subject: RE: NBC deadline question for NRC on seismic hazard estimates

We are checking the numbers. If you are working on a review on checking it, please let me know. I will coordinate our efforts to prevent duplication and assure we cover all the bases.

Ben

XXXX-502

From: Landau, Mindy
To: Burnell, Scott; OPA Resource
Subject: RE: From Brenda - Media Call re a quote by you
Date: Wednesday, March 16, 2011 11:08:53 AM

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ok

From: Burnell, Scott
Sent: Wednesday, March 16, 2011 11:08 AM
To: OPA Resource; Landau, Mindy
Subject: RE: From Brenda - Media Call re a quote by you

Mindy;

Please reply with this:

The immediate response would be "that's a very incomplete look at the overall research and we continue to believe U.S. reactors are capable of withstanding the strongest earthquake their sites could experience."

I'm still trying to get the staff to critique the article.

Thx.

Scott

From: OPA Resource
Sent: Wednesday, March 16, 2011 11:06 AM
To: Burnell, Scott
Subject: From Brenda - Media Call re a quote by you

If I should have sent this to Mindy, please let me know – sent to you because it refers to a quote by you.

Michael Blood
AP
213-346-3116
You are quoted in a report from another media outlet, wants report regarding national ranking of earthquakes
Needs ASAP (of course!)

B

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

XXXX-503

From: Burnell, Scott
To: Landau, Mindy
Subject: RE: From Brenda Media call "Meet the Press"
Date: Wednesday, March 16, 2011 11:05:00 AM

Thx.

From: Landau, Mindy
Sent: Wednesday, March 16, 2011 11:05 AM
To: Burnell, Scott
Subject: FW: From Brenda Media call "Meet the Press"

Requested an interview with the Chairman, will put on the log

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From: OPA Resource
Sent: Wednesday, March 16, 2011 10:57 AM
To: Landau, Mindy
Subject: From Brenda Media call "Meet the Press"

Alana
Meet the Press
202-885-4811

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

XXXX-304

From: Burnell, Scott
To: Landau, Mindy; Akstulewicz, Brenda; Shannon, Valerie; Janbergs, Holly
Cc: Screnci, Diane
Subject: RE: can you handle?
Date: Wednesday, March 16, 2011 10:49:00 AM

Try press release from last year on GSI-199; search 2010 list for "seismic"

From: Landau, Mindy
Sent: Wednesday, March 16, 2011 10:49 AM
To: Burnell, Scott; Akstulewicz, Brenda; Shannon, Valerie; Janbergs, Holly
Cc: Screnci, Diane
Subject: RE: can you handle?

Bethenny, can you handle if this is just a matter of getting him the right document?

Thanks
Mindy

From: Burnell, Scott
Sent: Wednesday, March 16, 2011 10:43 AM
To: Landau, Mindy; Akstulewicz, Brenda; Shannon, Valerie
Cc: Screnci, Diane
Subject: FW: can you handle?

I'm not in a position to answer now. Main office handle, please?

From: Screnci, Diane
Sent: Wednesday, March 16, 2011 10:41 AM
To: Burnell, Scott
Subject: can you handle?

Jim Acosta
CNN
202-515-2842
Re: Question on new earthquake risk assessment for plants across U.S. rankings – He would like a copy

DIANE SCRENCI
SR. PUBLIC AFFAIRS OFFICER
USNRC, RI
610/337-5330

XXXX 605

From: Burnell, Scott
To: Landau, Mindy
Subject: RE: 60 Minutes Request
Date: Wednesday, March 16, 2011 10:48:00 AM

Already being worked through Eliot.

From: Landau, Mindy
Sent: Wednesday, March 16, 2011 10:45 AM
To: Burnell, Scott
Subject: FW: 60 Minutes Request

This sounds pretty urgent

From: OPA Resource
Sent: Wednesday, March 16, 2011 10:43 AM
To: Landau, Mindy
Subject: FW: 60 Minutes Request

From: Kun, Rachael [mailto:KunR@cbsnews.com]
Sent: Tuesday, March 15, 2011 10:57 PM
To: Harrington, Holly
Cc: OPA Resource; Young, Nicole; Ruetenik, Daniel
Subject: 60 Minutes Request

Dear Holly,

Our 60 Minutes team with corresondent, Scott Pelley, are currently on the ground in Sendai Japan. We wanted to see if there's any way they can link up with NRC staffers at Fukushima. They are one of the last news teams on the ground covering this urgent and important situation. Please, let me know if there's any further information they can provide you to help with this request.

Thank you!

best,
Rachael Kun

XXXX-506

From: RMTPACTSU_ELNRC
To: Harrington, Holly; Burnell, Scott; LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA02 Hoc; LIA08 Hoc; McIntyre, David
Subject: Today"s 2:00 Congressional Call
Date: Wednesday, March 16, 2011 10:44:34 AM

I just got out of a meeting with USAID administrators and they felt that today's 2:00 was once again a priority. They requested a name of the NRC person that will support so that they can advertise.

Do we know who will support from the NRC?

Thanks!
Michael I. Dudek

XXXX-307

From: Landau, Mindy
To: Burnell, Scott
Subject: FW: David McIntyre Statements, please verify radiation to hit USA tonight?
Date: Wednesday, March 16, 2011 10:42:36 AM

Scott, I know David isn't in yet, can you return this call?

-----Original Message-----
From: OPA Resource
Sent: Wednesday, March 16, 2011 10:40 AM
To: Landau, Mindy
Subject: FW: David McIntyre Statements, please verify radiation to hit USA tonight?

-----Original Message-----
From: mj@deepplanet.com [mailto:mj@deepplanet.com]
Sent: Tuesday, March 15, 2011 7:35 PM
To: OPA Resource
Subject: David McIntyre Statements, please verify radiation to hit USA tonight?

Hello there, please verify, the sun newspaper in the UK is saying that Nuclear Regulatory Commission spokesman David McIntyre said: "Right now it's quite possible that there could be some radiation floating over the United States". Can you confirm that he really said that? What levels is he expecting by this evening?

Quoted in The Sun:
http://www.thesun.co.uk/sol/homepage/news/article3468134.ece

And The Daily Mail:
http://www.dailymail.co.uk/news/article-1366341/Japan-tsumani-earthquake-America-nuclear-accident-radiation-alert.html

FYI we're in Santa Monica and NO STORES HAVE POTASSIUM IODIDE - not CVS, Rite Aid, Walgreens, etc etc. We're totally unprepared for this and have a young child. Please advise.

XXXX-Bd

From: Burnell, Scott
To: Harrington, Holly; McIntyre, David
Subject: RE: EPA/NRC/CNN
Date: Wednesday, March 16, 2011 10:32:00 AM

No. I'd go with Dave's interpretation of them garbling a "EPA is responsible for monitoring via RadNet" statement.

-----Original Message-----
From: Harrington, Holly
Sent: Wednesday, March 16, 2011 10:31 AM
To: Burnell, Scott
Subject: FW: EPA/NRC/CNN

Do you know anything about this?

-----Original Message-----
From: McIntyre, David
Sent: Wednesday, March 16, 2011 10:25 AM
To: Andy.Adora@epamail.epa.gov; Harrington, Holly
Subject: EPA/NRC/CNN

I'm not in the office now (I go on at 2 pm - midnight today) but I suspect this is a garble of "EPA is in charge on monitoring air in US" and that your RadNet data is online. It is quite possible the reporter is fishing.

We handled press calls in the 100s yesterday, as I'm sure you were busy too. Our only talking point on this is that EPA is the lead agency on monitoring radiation in the US, and we are now prepared to refer folks (press and public) to your statement.

I'll alert my colleagues to this by cc here.

Holly: Adora is my EPA contact from later. Note apparently garbled message below.

From: Andy.Adora@epamail.epa.gov [Andy.Adora@epamail.epa.gov]
Sent: Wednesday, March 16, 2011 9:33 AM
To: McIntyre, David
Cc: Johnson.Alisha@epamail.epa.gov
Subject: RE: ACTION: STATEMENT

Hey David,
We got this from CNN and it's a little disturbing because CNN is saying that someone at NRC sent them our way regarding tracking a "radio active plume." Before we get back to CNN and tell them they're crazy, are you at all aware of this? Can you tell me if they have your 3-13 statement and might just be fishing? What do you think?
Thanks my friend,
Adora

----- Forwarded by Alisha Johnson/DC/USEPA/US on 03/16/2011 09:14 AM -----

|----------> | From: | |----------> >----------|

|"Rizzo, Jennifer" <Jennifer.Rizzo@turner.com>

XXXX-309

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| To: |
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|Press@EPA |
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| Date: |
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|03/16/2011 07:36
AM |
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|---------->
| Subject: |
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|CNN Request: Japan Radiation
Plume |
>----------
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Good morning-- I was told by the NRC that the EPA was putting something out tracking the radioactive plume in Japan. Is it up yet because I don't see it on the site.

Thanks,
Jennifer Rizzo
National Security Producer
202-772-2608

From: Adora Andy/DC/USEPA/US
To: "McIntyre, David" <David.McIntyre@nrc.gov>
Cc: Alisha Johnson/DC/USEPA/US@EPA, "Brenner, Eliot" <Eliot.Brenner@nrc.gov>
Date: 03/15/2011 06:03 PM
Subject: RE: ACTION: STATEMENT

Final statement, I'm sending to reporters who are asking now. Should be on our website in the next 20-30. Thanks!

EPA STATEMENT:
As the U.S. Nuclear Regulatory Commission has said, we do not expect to see radiation at harmful levels reaching the U.S. from damaged Japanese

nuclear power plants. As part of the federal government's continuing effort to make our activities and science transparent and available to the public, the Environmental Protection Agency (EPA) will continue to keep all RadNet data available in the current online database. In addition, EPA plans to work with its federal partners to deploy additional monitoring capabilities to parts of the western U.S. and U.S. territories.

As always, EPA is utilizing this existing nationwide radiation monitoring system, RadNet, which continuously monitors the nation's air and regularly monitors drinking water, milk and precipitation for environmental radiation. The RadNet online searchable database contains historical data of environmental radiation monitoring data from all fifty states and U.S. territories.

###
NOTE: RadNet air monitoring data can be always be viewed on EPA's Central Data Exchange (CDX) website at www.epa.gov/cdx.

Adora Andy
Deputy Associate Administrator
U.S. Environmental Protection Agency
Office of External Affairs and Environmental Education
202-564-2715
andy.adora@epa.gov

From: Shapiro, Nicholas S.
To: Shapiro, Nicholas S.; Broad, Bill; Leistikow, Dan; Reynolds, Tom; Stephanie.Mueller@hq.doe.gov; Brenner, Eliot; Sheehan, Neil; Burnell, Scott; Salcido, Dori (HHS/ASPA)
Subject: RE: Japan plume
Date: Wednesday, March 16, 2011 10:28:25 AM

Also adding HHS, as they should talk to you as well Bill

From: Shapiro, Nicholas S.
Sent: Wednesday, March 16, 2011 10:24 AM
To: 'Broad, Bill'; Leistikow, Dan; Reynolds, Tom; Stephanie.Mueller@hq.doe.gov; Brenner, Eliot; Sheehan, Neil; 'Burnell, Scott'
Subject: RE: Japan plume

Hey bill,

You should talk to DOE and NRC. NRC has assured and I quote the NRC, **"You just aren't going to have any radiological material that, by the time it traveled those large distances, could present any risk to the American public."**

Just as you said, we are doing a lot to make sure we are in the most forward leaning posture possible.

Adding DOE and NRC to help you with this story. but can I ask you why on earth the NYT thinks it's a good idea to do a "false scare story"?

From: Broad, Bill [mailto:wjb@nytimes.com]
Sent: Wednesday, March 16, 2011 10:20 AM
To: Shapiro, Nicholas S.
Subject: Japan plume

Nick:

Can we talk for a minute about the radiation plume? This is a false scare story that we're trying to do responsibly. It seems every agency is doing its part -- NOAA, FAA, DOE, DOD, etc. I'd love to get your help in opening some doors. It seems like live readings away from Japan (and the 7th fleet) will come in today, if they haven't already. The European agencies are all over this and will be talking. I'm at my desk, 212-556-7144

Cheers,

Bill

William J. Broad
Science Department
New York Times
620 8th Avenue
New York, NY, 10018

212-556-7144 voice

XXXX-510

707-982-0992 fax (into email)
212-556-7306 fax

From: Burnell, Scott
To: Landau, Mindy; McIntyre, David; Couret, Ivonne
Subject: RE: from Wall Street Journal
Date: Wednesday, March 16, 2011 10:27:00 AM

Thanks!

-----Original Message-----
From: Landau, Mindy
Sent: Wednesday, March 16, 2011 10:27 AM
To: Burnell, Scott; McIntyre, David; Couret, Ivonne
Subject: RE: from Wall Street Journal

Already forwarded this one to Roger....

-----Original Message-----
From: Burnell, Scott
Sent: Wednesday, March 16, 2011 10:25 AM
To: McIntyre, David; Couret, Ivonne; Landau, Mindy
Subject: RE: from Wall Street Journal

For the office today...

-----Original Message-----
From: McIntyre, David
Sent: Wednesday, March 16, 2011 10:23 AM
To: Burnell, Scott
Subject: FW: from Wall Street Journal

Can you pls add this to your queue as I won't be there for several more hours?

From: Searcey, Dionne [Dionne.Searcey@wsj.com]
Sent: Wednesday, March 16, 2011 9:57 AM
To: McIntyre, David
Subject: from Wall Street Journal

Hi Mr. McIntyre. I'm working on a story about liability issues associated with private nuclear reactors and had a couple questions about the Prince-Anderson Act. Could you give me a call? I'm on deadline today.

Thanks.
Dionne Searcey 212-416-4457
The Wall Street Journal

XXXX-311

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
Subject: FW: Topline Talking Points (resend)
Date: Wednesday, March 16, 2011 2:53:52 PM

May be helpful

From: NATIONAL JIC [mailto:NationalJIC@dhs.gov]
Sent: Wednesday, March 16, 2011 2:31 PM
To: NATIONAL JIC
Subject: Topline Talking Points (resend)

IF ASKED about any questions about harmful radiation headed towards the US: **NRC Chairman Jaczko continues to say the following: "You just aren't going to have any radiological material that, by the time it traveled those large distances, could present any risk to the American public."**

Topline Points

- The United States is continuing to do everything in its power to help Japan and American citizens who were there at the time of these tragic events.

- USAID is coordinating the overall U.S. government efforts in support of the Japanese government's response and are currently directing individuals to www.usaid.gov for information about response donations.

- The President is being kept up to date and is constantly being briefed by his national security staff. The National Security staff in the White House is also coordinating a large interagency response with experts meeting around the clock to monitor the latest information coming out of Japan.

- We have offered our Japanese friends includes disaster response experts, search and rescue teams, technical advisers with nuclear expertise and logistical support from the United States military.

- In response to the deteriorating situation at the Fukushima Nuclear Power Plant, the United States Nuclear Regulatory Commission (NRC), the Department of Energy and other technical experts in the U.S. Government have reviewed the scientific and technical information they have collected from assets in country, as well as what the Government of Japan has disseminated. Consistent with the NRC guidelines that would apply to such a situation in the United States, we are recommending, as a precaution, that American citizens who live within 50 miles (80 kilometers) of the Fukushima Nuclear Power Plant evacuate the area or to take shelter indoors if safe evacuation is not practical.

- We want to underscore that there are numerous factors in the aftermath of the earthquake and Tsunami, including weather, wind direction and speed, and the nature of the reactor problem that affect the risk of radioactive contamination within this 50 mile radius or the possibility of lower-level radioactive materials reaching greater distances.

XXXX-3/2

- To support our citizens there, the Embassy is working around the clock, we have our consular services available 24 hours a day to determine the whereabouts and well-being of all U.S. citizens in Japan. U.S. citizens in need of emergency assistance should send an e-mail to JapanEmergencyUSC@state.gov with detailed information about their location and contact information, and monitor the U.S. Department of State website at travel.state.gov.

As I said earlier, we have offered our Japanese friends disaster response experts, search and rescue teams, technical advisers with nuclear expertise and logistical support from the United States military.

- Secretary Chu announced that DOE offered and Japan accepted an Aerial Measuring System capability, including detectors and analytical equipment used to provide assessments of contamination on the ground. In total, the DOE team includes 34 people.

- USAID set up a Response Management Team in DC and sent a Disaster Assistance Response Team to Tokyo, which includes people with nuclear expertise from the Departments of Energy and Health and Human Services as well the Nuclear Regulatory Commission (NRC). The NRC members are experts in boiling water nuclear reactors and are available to assist their Japanese counterparts.

- Two Urban Search and Rescue Teams (LA County and Fairfax County teams) which total 144 members plus 12 search and rescue canines and up to 45 metric tons of rescue equipment have begun searching for survivors.

- The Department of Defense has the USS Reagan on station off the coast of Japan and is currently using an air facility in Misawa as a forward operating base.

- The American Red Cross (ARC) International Services team is supporting the Japanese Red Cross Society (JRCS) to assess the impact, determine response efforts, and assist the people of Japan.

- USAID is hosting a daily conference call with Congressional staff, including participation from DoD, DoS, NRC, DoE, and HHS. The U.S. officials will continue to provide a brief overview of each agency's efforts in the response to Japan and respond to questions from the Congressional staff regarding humanitarian assistance, military assistance, and the nuclear plant situation.

- Currently nearly 5300 US military members are supporting the disaster relief efforts. There are 8 ships, including the aircraft carrier USS Ronald Reagan, transport aircraft and more than 100 military helos are being repositioned to northern Japan to support the efforts.

- The US military has flown reconnaissance flights and provided the Japanese government with images of the areas affected by the earthquake and tsunami. Search and rescue flights and missions along the coast continue, relief operations including delivery of food, water and other relief supplies also continue.

- Yokota Air Base is serving as a humanitarian relief operations staging area and Misawa Air Base is serving as both a logistical hub for humanitarian relief and rescue workers as well as an operating base for U.S., Japanese and other international helos and aircraft.

Here at a home, the government is doing a number of things as well.

- The US Government will be studying every aspect of the Japanese disaster and the Japanese government's response, with the goal of learning as much as possible from that review.

- As the Nuclear Regulatory Commission has said, we do not expect to see radiation at harmful levels reaching the U.S. from damaged Japanese nuclear power plants. As part of the federal government's continuing effort to make our activities and science transparent and available to the public, the Environmental Protection Agency (EPA) will continue to keep all RadNet data available in the current online database. In addition, EPA plans to work with its federal partners to deploy additional monitoring capabilities to parts of the western U.S. and U.S. territories.

- As always, EPA is utilizing this existing nationwide radiation monitoring system, RadNet, which continuously monitors the nation's air and regularly monitors drinking water, milk and precipitation for environmental radiation. The RadNet online searchable database contains historical data of environmental radiation monitoring data from all fifty states and U.S. territories.

- The FDA and USDA continues to ensure all our imported food remains safe as they do everyday

- If there were to be a nuclear accident here, we are prepared to respond and FEMA and the Department of Homeland Security exercise these preparedness plans with the rest of the government and state and local officials as well. Release of radioactive materials can be accidental or intentional and we have a detailed plan to respond regardless of the cause. The Nuclear/Radiological Incident Annex to the National Response Framework outlines which department or agency would have the lead for the Federal response depending on the source and type of release. For example, the Nuclear Regulatory Commission (NRC) would coordinate a response to a release at nuclear power facilities licensed by the NRC. The Department of Energy would coordinate a response to a release involving nuclear weapons in DOE custody. The Department of Homeland Security would coordinate a response to a deliberate attack using improvised nuclear devices or radiological dispersal devices.

- Given the range of potential causes, from an earthquake to a terrorist attack, the plan provides the flexibility and agility we need to respond aggressively and effectively. In addition, state and local officials and nuclear facilities have detailed emergency plans that include specific protective actions, evacuation routes, and methods to alert the public of actions to take in the event of an emergency. There is a robust and active nuclear power plant accident exercise program that includes Federal, State, and local involvement to test plans and keep them current, and just last year we conducted

such an exercise. Federal protective action guides are used at all nuclear power plants and are widely accepted and used in planning and exercises, and we will continue our efforts to plan and prepare for the safety and security of the American people.

From: Harrington, Holly
To: Hayden, Elizabeth; Burnell, Scott
Subject: RE: 60 Minutes
Date: Wednesday, March 16, 2011 9:57:39 AM

I'll forward to Eliot. He wanted press for this team. Not sure if this is what he wnted or not

---

From: Hayden, Elizabeth
Sent: Wednesday, March 16, 2011 9:55 AM
To: Harrington, Holly; Burnell, Scott
Subject: Fw: 60 Minutes

Who is the communication officer?

From: Casto, Chuck
To: Hayden, Elizabeth
Sent: Wed Mar 16 09:53:25 2011
Subject: Fw: 60 Minutes

From: Trapp, James
To: Casto, Chuck
Sent: Wed Mar 16 09:38:08 2011
Subject: Fw: 60 Minutes

From: Cherry, Ronald C <CherryRC@state.gov>
To: Kelley, Karen D (IO/Tokyo) <KelleyK@state.gov>
Cc: Trapp, James; Ulses, Anthony
Sent: Tue Mar 15 19:03:48 2011
Subject: RE: 60 Minutes

Karen,

The NRC team that arrives in Tokyo this afternoon will have a communications officer. In the meantime, we'll follow up with NRC in Washington on this to get the go-ahead and guidance.

Thanks very much.

Ron

This email is UNCLASSIFIED.

From: Kelley, Karen D (IO/Tokyo)

XXXX-b/b

Sent: Tuesday, March 15, 2011 11:14 PM
To: Cherry, Ronald C
Subject: Fw: 60 Minutes

Ron,

CBS TV's 60 Minutes is seeking an interview with an NRC official to discuss the nuclear plant issue. I understand they are seeking an on-the-record interview opportunity.

Is there anyone that would be willing to engage at this point? I would be happy to assist with this interview.

Please advise.

Karen

From: Ruetenik, Daniel <RuetenikD@cbsnews.com>
To: Kelley, Karen D (IO/Tokyo)
Sent: Tue Mar 15 09:57:57 2011
Subject: Re: 60 Minutes

Hi Karen,

Is there any chance you were able to find an NRC contact for us?

Regards,

Dan

----- Original Message -----
From: Kelley, Karen D (IO/Tokyo) <KelleyK@state.gov>
To: Ruetenik, Daniel
Sent: Mon Mar 14 22:44:57 2011
Subject: Re: 60 Minutes

Hi Dan,

The consular officers in the field need to wait until I receive the clearance from State Department. I don't have that OK yet, although I have strongly recommended that this be approved.

I will take your request on the NRC interview up and see if there is a point of contact for you to talk to.

Karen

From: Ruetenik, Daniel <RuetenikD@cbsnews.com>
To: Kelley, Karen D (IO/Tokyo)
Sent: Mon Mar 14 22:28:03 2011
Subject: 60 Minutes

Karen,

We heard from Andy Utshig that you've asked him to hold off on talking to us. I would appreciate the chance to

talk about your concerns on that.

Also - I am not sure if you're the right person to put this into, but we'd like to request an interview with members of the NRC team once they have finished their analysis. Speaking with 60 Minutes would be the best way to reach the largest audience and calm the growing anxiety amongst Americans about the dangers from the nuclear release.

If there's a contact with the NRC that I can put that request into directly I'd greatly appreciate if you could pass that on.

Regards,

Dan

From: Manoly, Kamal
To: Hiland, Patrick; Skeen, David; Stutzke, Martin; Beasley, Benjamin; Burnell, Scott
Cc: Ferrante, Fernando; Laur, Steven; Chokshi, Nilesh
Subject: FW: NBC deadline question for NRC on seismic hazard estimates
Date: Wednesday, March 16, 2011 9:53:46 AM

It seems that he spun the information provided to support a biased point of view he already has and to make the story sensational!

From: Bill Dedman [mailto:Bill.Dedman@msnbc.com]
Sent: Wednesday, March 16, 2011 6:44 AM
To: Manoly, Kamal; Sheron, Brian; Hiland, Patrick; OPA Resource
Subject: RE: NBC deadline question for NRC on seismic hazard estimates

This story is online now. If you see any error, please let me know right away.

Thanks,

Bill

http://www.msnbc.msn.com/id/42103936/ns/world_news-asiapacific/

From: Bill Dedman
Sent: Tuesday, March 15, 2011 9:06 AM
To: 'Kamal.Manoly@nrc.gov'; 'brian.sheron@nrc.gov'; 'patrick.hiland@nrc.gov'; 'OPA.Resource@nrc.gov'
Subject: NBC deadline question for NRC on seismic hazard estimates

Good morning,

My name is Bill Dedman. I'm a reporter for NBC News and msnbc.com, writing an article today about:

SAFETY/RISK ASSESSMENT RESULTS FOR GENERIC ISSUE 199, "IMPLICATIONS OF UPDATED PROBABILISTIC SEISMIC HAZARD ESTIMATES IN CENTRAL AND EASTERN UNITED STATES ON
EXISTING PLANTS"

I reached out to NRC Public Affairs yesterday but have not heard back, and my deadline is end-of-day today. I'm hoping to get on the phone today with someone from NRC to make sure I'm conveying this information accurately to the public. If nothing else, I'm hoping one of the technical people can help clarify the points below. My telephone number is 203-451-9995.

I've read Director Brian Sheron's memo of Sept. 2, 2010, to Mr. Patrick Hiland; the safety/risk assessment of August 2010; its appendices A through D; NRC Information Notice 2010-18; and the fact sheet from public affairs from November 2010.

I have these questions:

1. I'd like to make sure that I accurately place in layman's terms the seismic hazard estimates. I

need to make sure that I'm understanding the nomenclature for expressing the seismic core-damage frequencies. Let's say there's an estimate expressed as "2.5E-06." (I'm looking at Table D-2 of the safety/risk assessment of August 2010.) I believe that this expression means the same as 2.5 x 10^-06, or 0.0000025, or 2.5 divided by one million. In layman's terms, that means an expectation, on average, of 2.5 events every million years, or once every 400,000 years. Similarly, "2.5E-05" would be 2.5 divided by 100,000, or 2.5 events every 100,000 years, on average, or once every 40,000 years. Is this correct?

2. These documents give updated probabilistic seismic hazard estimates for existing nuclear power plants in the Central and Eastern U.S. What document has the latest seismic hazard estimates (probabilistic or not) for existing nuclear power plants in the Western U.S.?

3. The documents refer to newer data on the way. Have NRC, USGS et al. released those? I'm referring to this: "New consensus seismic-hazard estimates will become available in late 2010 or early 2011 (these are a product of a joint NRC, U.S. Department of Energy, U.S. Geological Survey (USGS) and Electric Power Research Institute (EPRI) project). These consensus seismic hazard estimates will supersede the existing EPRI, Lawrence Livermore National Laboratory, and USGS hazard estimates used in the GI-199 Safety/Risk Assessment."

4. What is the timetable now for consideration of any regulatory changes from this research?

Thank you for your help.

Regards,

Bill Dedman

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From: Santiago, Patricia
To: Guzman, Richard
Cc: Burnell, Scott; Chang, Richard
Subject: RE: Question
Date: Wednesday, March 16, 2011 9:20:29 AM
Importance: High

So now that you agree there will be a question, can you prepare a draft or see if you can initiate....Scott may have one and Scott please let us know..... and if not, Scott will likely need your help in drafting one.

Thanks for the link
Rich...
http://www.computerworld.com/s/article/9214629/NRC_tapping_tech_for_better_analysis_of_nuclear_accidents?taxonomyId=70&pageNumber=2

From: Guzman, Richard
Sent: Wednesday, March 16, 2011 9:09 AM
To: Chang, Richard
Cc: Burnell, Scott; Santiago, Patricia
Subject: RE: Question

Richard – I'm not aware of any completed write-ups or comparison w/US BWRs - at least not at this point. I would anticipate in the weeks ahead that some sort of comms plan/Q&A would be developed in light of the recent international operating experience to ensure effective and consistent communications to internal and external stakeholders. I'll notify you if I come across anything. Perhaps Scott B. can address your question on the OPA side of the house?

Thanks,
Rich

From: Chang, Richard
Sent: Wednesday, March 16, 2011 7:45 AM
To: Guzman, Richard
Cc: Burnell, Scott; Santiago, Patricia
Subject: Question

Rich,

Do you know if anyone from NRR has done a writeup/ comparison of the Japanese reactors to the US BWRs?

Thanks,
Richard Chang
Program Manager
RES/DSA/SPB
301-251-7980

XXXX-315

From: Akstulewicz, Brenda
To: Deavers, Ron; Bonaccorso, Amy; Landau, Mindy; 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: New Admin Support at HQ
Date: Wednesday, March 16, 2011 9:19:04 AM

Hi Everyone!

FYI –

Deanna Royer, who is Frank's admin. assist in NRO, has kindly agreed to help us out. She comes highly recommended and eager to help!

Any questions, please let me know.

Thanks,
B

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

XXXX-316

From: Burnell, Scott
To: Landau, Mindy
Subject: RE: Interview Request
Date: Wednesday, March 16, 2011 9:15:00 AM

Do not forward, reply to VOA is thank you, we're unable to accommodate interview requests at this point.

From: Landau, Mindy
Sent: Wednesday, March 16, 2011 9:14 AM
To: Burnell, Scott
Subject: FW: Interview Request

Scott – do you want to handle this with Vladimir or just give him the call?

From: Akstulewicz, Brenda
Sent: Wednesday, March 16, 2011 9:13 AM
To: Landau, Mindy
Subject: Interview Request

Gary Thomas
Voice of America
202-203-4323
Seeking interview with Vladimir Graizer of NRC

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

XXXX-317

From: Guzman, Richard
To: Chang, Richard
Cc: Burnell, Scott; Santiago, Patricia
Subject: RE: Question
Date: Wednesday, March 16, 2011 9:08:59 AM

Richard – I'm not aware of any completed write-ups or comparison w/US BWRs - at least not at this point. I would anticipate in the weeks ahead that some sort of comms plan/Q&A would be developed in light of the recent international operating experience to ensure effective and consistent communications to internal and external stakeholders. I'll notify you if I come across anything. Perhaps Scott B. can address your question on the OPA side of the house?
Thanks,
Rich

From: Chang, Richard
Sent: Wednesday, March 16, 2011 7:45 AM
To: Guzman, Richard
Cc: Burnell, Scott; Santiago, Patricia
Subject: Question

Rich,

Do you know if anyone from NRR has done a writeup/ comparison of the Japanese reactors to the US BWRs?

Thanks,
Richard Chang
Program Manager
RES/DSA/SPB
301-251-7980

XXXX318

From: Shannon, Valerie
To: Akstulewicz, Brenda; Brenner, Eliot; Burnell, Scott; Harrington, Holly; Hayden, Elizabeth; Couret, Ivonne; Janbergs, Holly; McIntyre, David
Subject: Hearing Today
Date: Wednesday, March 16, 2011 8:59:39 AM

FYI,
The hearing at 9:30 today can be viewed on C-Span 3 which is channel 39 (NRC Broadband)
Val

XXXX-3A

From: Munson, Clifford
To: Burnell, Scott
Subject: FW: Numbers
Date: Wednesday, March 16, 2011 8:46:21 AM
Importance: High

I am having Marty and Jon check these numbers.

Cliff

From: Munson, Clifford
Sent: Wednesday, March 16, 2011 8:40 AM
To: Stutzke, Martin; Ake, Jon
Cc: Kammerer, Annie; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal
Subject: FW: Numbers
Importance: High

Marty and Jon,

Please see the MSNBC article below and check out his numbers. Reporter lists Indian Pt3 as having a SCDF of 1E-4. From my GI-199 table its 3.3E-5. Where did he get his numbers from – did he confuse the delta SCDF with actual?

Thanks,
Cliff

From: Burnell, Scott
Sent: Wednesday, March 16, 2011 8:23 AM
To: Munson, Clifford
Subject: FW: Numbers
Importance: High

From: Burnell, Scott
Sent: Wednesday, March 16, 2011 7:22 AM
To: Kammerer, Annie; Ake, Jon; Manoly, Kamal
Cc: Brenner, Eliot; Harrington, Holly; Screnci, Diane; Sheehan, Neil; Hannah, Roger; Ledford, Joey; Chandrathil, Prema; Mitlyng, Viktoria; Uselding, Lara; McIntyre, David; Couret, Ivonne
Subject: FW: Numbers
Importance: High

Annie, Jon, Kamal;

I know you're going to have a cow over this – somewhat inevitable when a reporter new to the subject tries to summarize things. Apart from "you're totally off-base," what specific technical corrections can we ask for??

OPA – this is likely to spark a lot of follow-up. The immediate response would be "that's a very incomplete look at the overall research and we continue to believe U.S. reactors are capable of withstanding the strongest earthquake their sites could experience." I'll share whatever we get from the experts.

XXXX-320

Scott

From: Bill Dedman [mailto:Bill.Dedman@msnbc.com]
Sent: Wednesday, March 16, 2011 6:47 AM
To: Burnell, Scott
Subject: RE: Numbers

Scott,

FYI, this story is online now.

If you or the NRC technical see any error, please let me know right away. I linked to all the source documents so people can also read in full.

Thanks,

Bill

http://www.msnbc.msn.com/id/42103936/ns/world_news-asiapacific/

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: Tuesday, March 15, 2011 3:38 PM
To: Bill Dedman
Subject: Numbers

Bill;

Staff's amazing here – they were compiling these numbers just in case – the Western plants are in there.

Scott Burnell

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From: Adee, Sally (RBI-UK)
To: Burnell, Scott
Subject: RE: New Scientist article on nuclear power
Date: Wednesday, March 16, 2011 8:30:35 AM

Thanks, Scott. I totally understand.

Talk to you soon, and good luck!

Sally

From: Burnell, Scott [mailto:Scott.Burnell@nrc.gov]
Sent: 16 March 2011 11:46
To: Adee, Sally (RBI-UK)
Subject: RE: New Scientist article on nuclear power

Hello Sally;

One professional to another – It's not worth checking with us on this for at least two weeks. Thanks.

Scott

From: Adee, Sally (RBI-UK) [mailto:Sally.Adee@newscientist.com]
Sent: Wednesday, March 16, 2011 6:52 AM
To: Burnell, Scott
Subject: New Scientist article on nuclear power

Dear Scott,

We last spoke when I was writing an article on next generation nuclear power for IEEE Spectrum. You were incredibly helpful, and because no good deed goes unpunished, I'm hitting you up again.

I am now an editor at New Scientist, and we're working on an explainer about nuclear power. These types of articles are expert-authored, and so I'm imposing on you for help.

I'm sure you must be completely overwhelmed by reporters asking for quotes. However, if it's possible, could you check around and see who might be interested in doing this over the next month?

Thanks again for your help last year.

Warm regards,

Sally

Sally Adee
Feature Editor
New Scientist
email: sally.adee@newscientist.com
tel: +44 20 7611 1249
84 Theobald's Road, London, WC1X 8NS

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XXXX 321

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Registered in England under Company No. 151537

==========

From: Landau, Mindy
To: Burnell, Scott
Subject: FW: Media Call
Date: Wednesday, March 16, 2011 8:24:40 AM

Scott – can you call her?

From: Akstulewicz, Brenda
Sent: Wednesday, March 16, 2011 8:20 AM
To: Landau, Mindy
Subject: Media Call

Called and asked for Scott:

Sharon Behn
Voice of America
202/203/4343
Please confirm – police are using water cannons on plants?

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

XXXX-BBB

From: Chang, Richard
To: Guzman, Richard
Cc: Burnell, Scott; Santiago, Patricia
Subject: Question
Date: Wednesday, March 16, 2011 7:45:18 AM

Rich,

Do you know if anyone from NRR has done a writeup/ comparison of the Japanese reactors to the US BWRs?

Thanks,
Richard Chang
Program Manager
RES/DSA/SPB
301-251-7980

XXXX-323

From: LIA05 Hoc
Sent: Wednesday, March 16, 2011 12:59 PM
To: Andrew Seward; Harry Sherwood; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn
Cc: bonnie.sheffield@dhs.gov
Subject: BWR Diagrams for your Use
Attachments: BWR Diagrams.pdf

FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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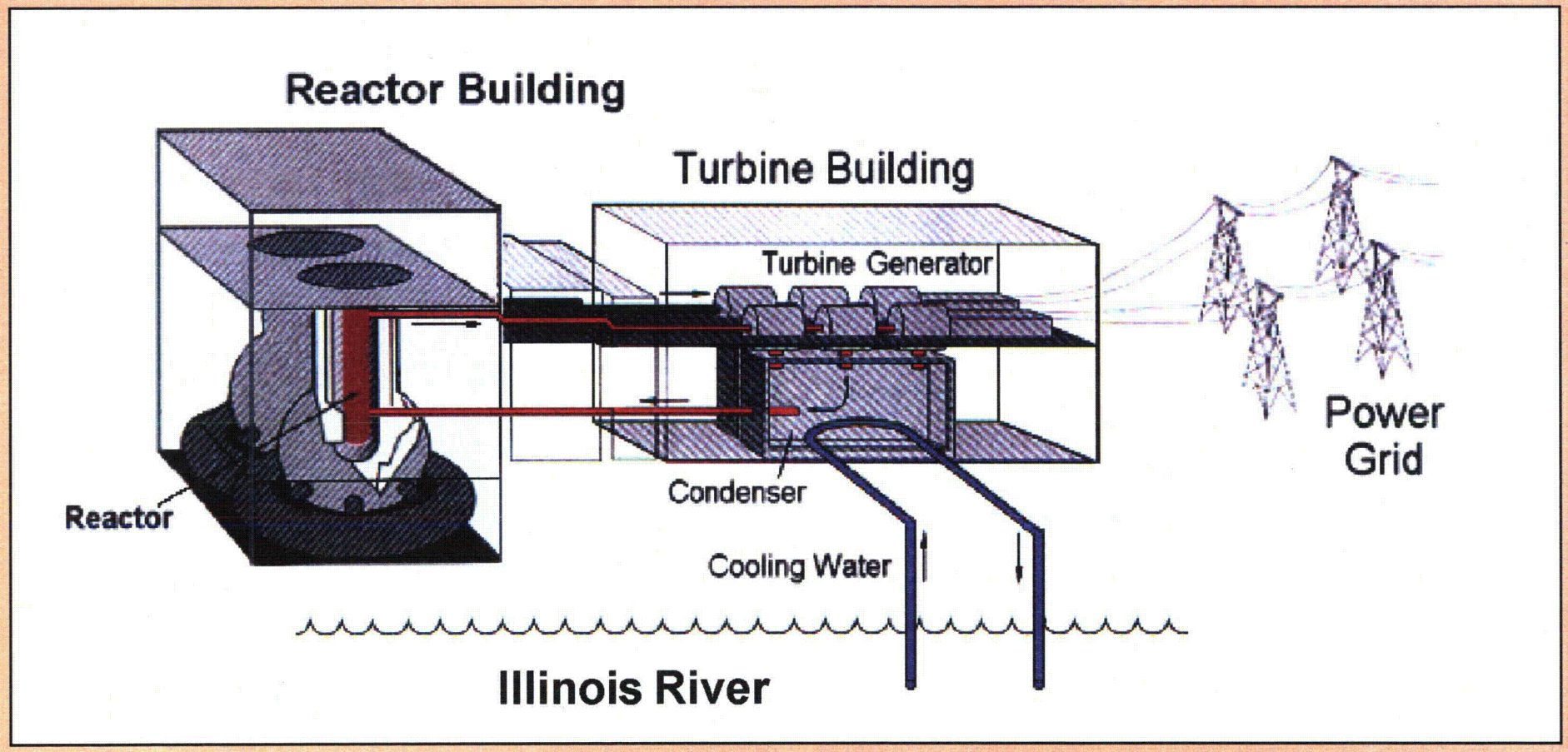
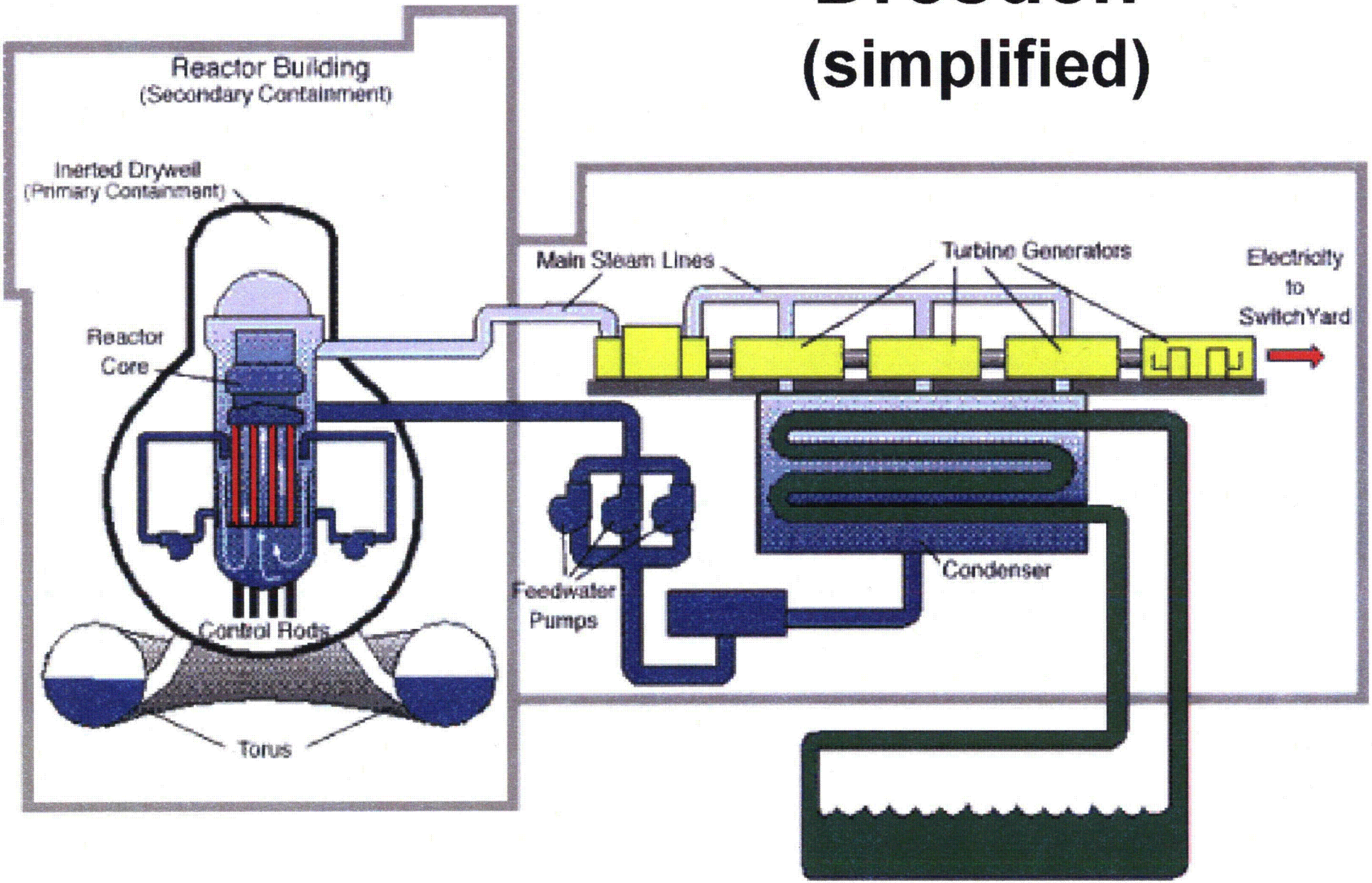
XXXX-BAH

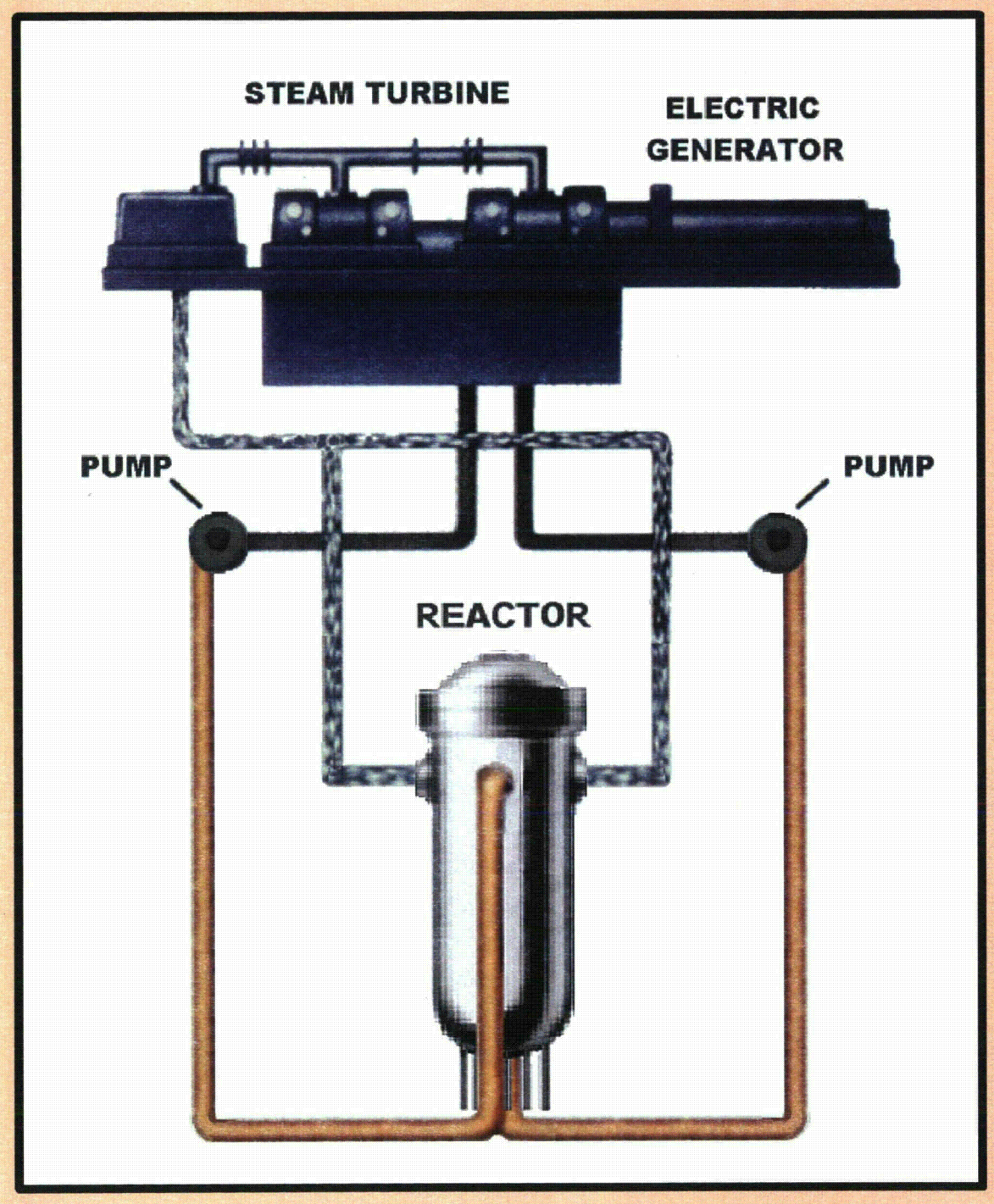
Dresden
(simplified)



Boiling Water Reactor

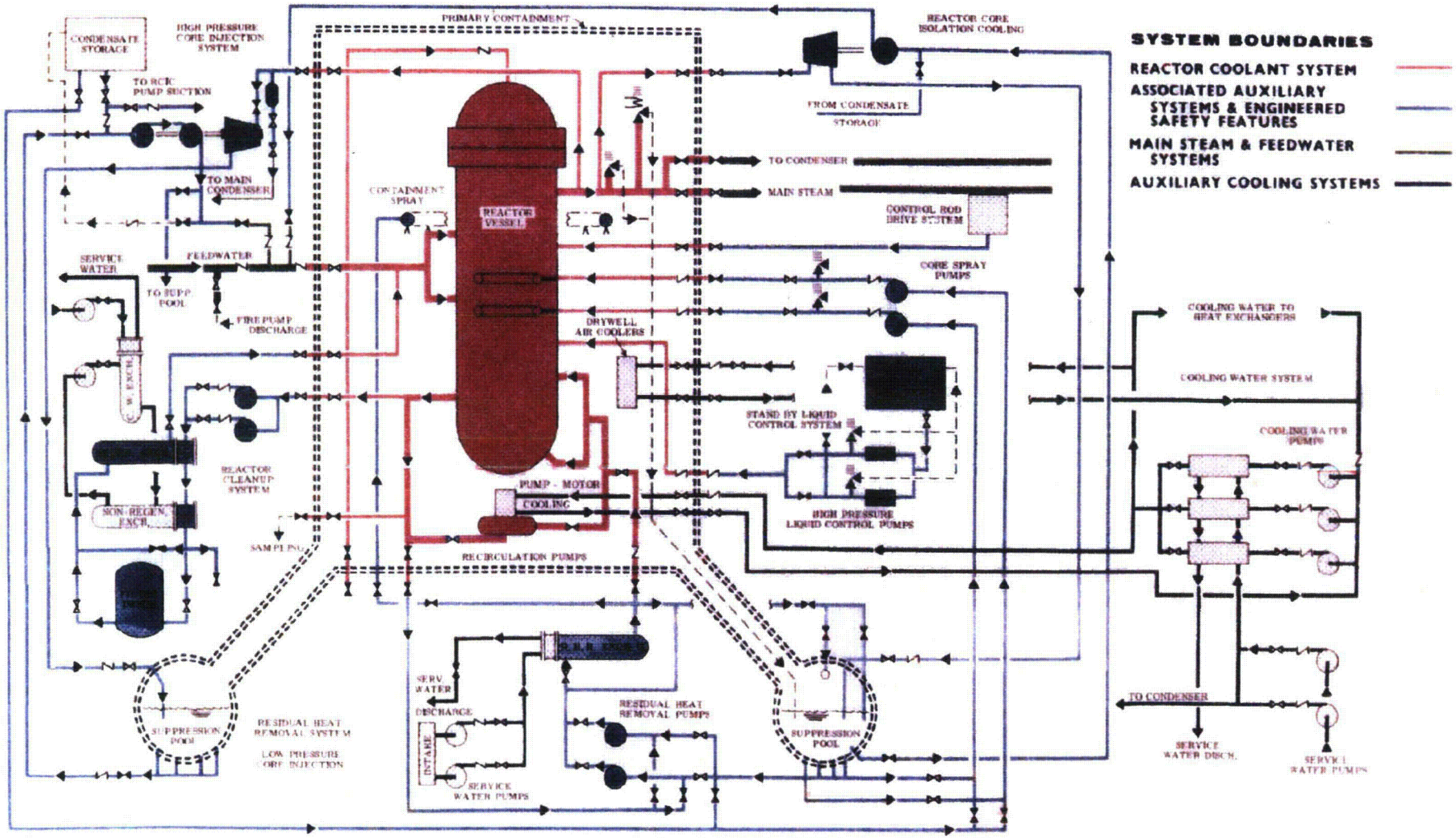
Dresden
(simplified)

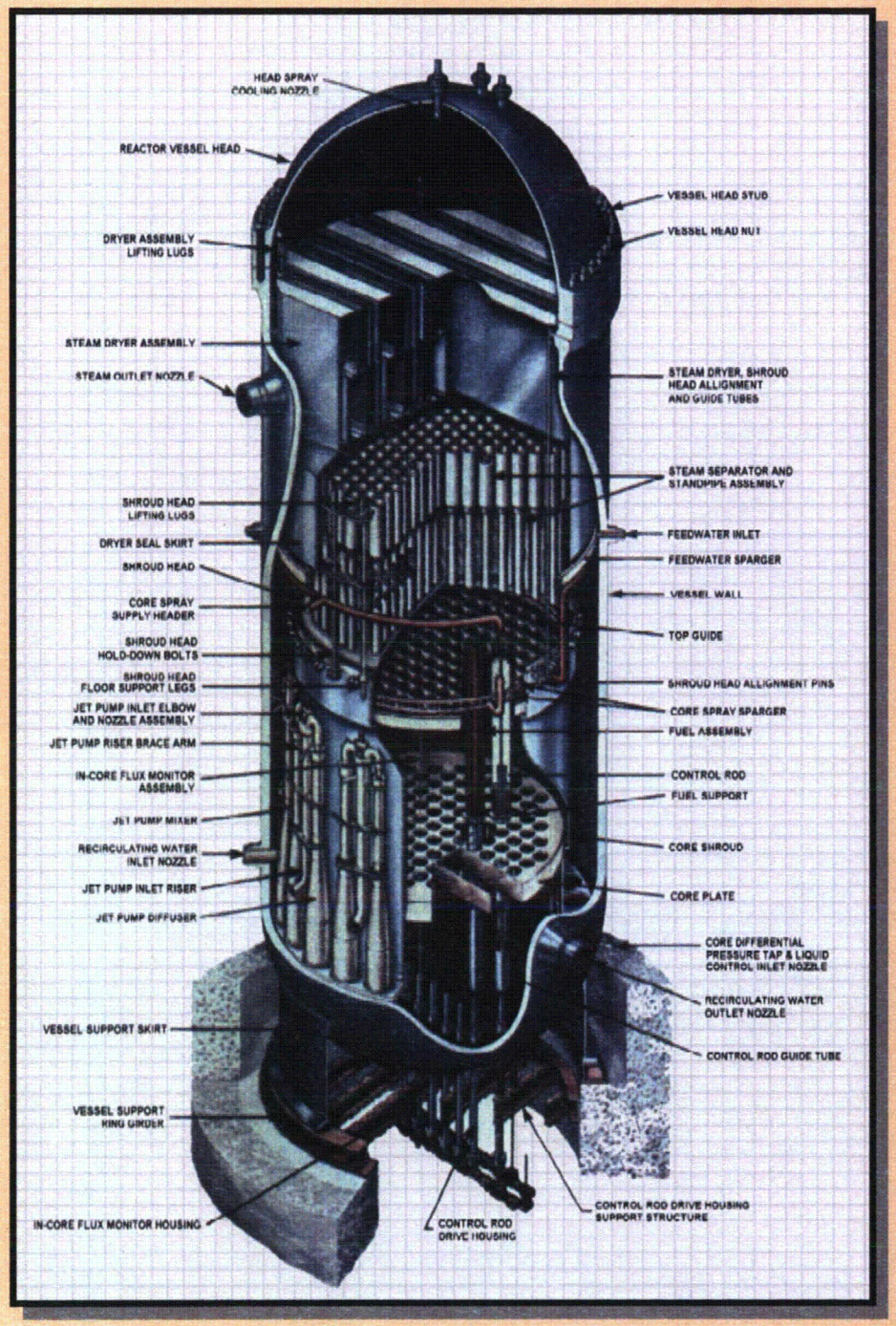




BWR Nuclear Steam Supply System

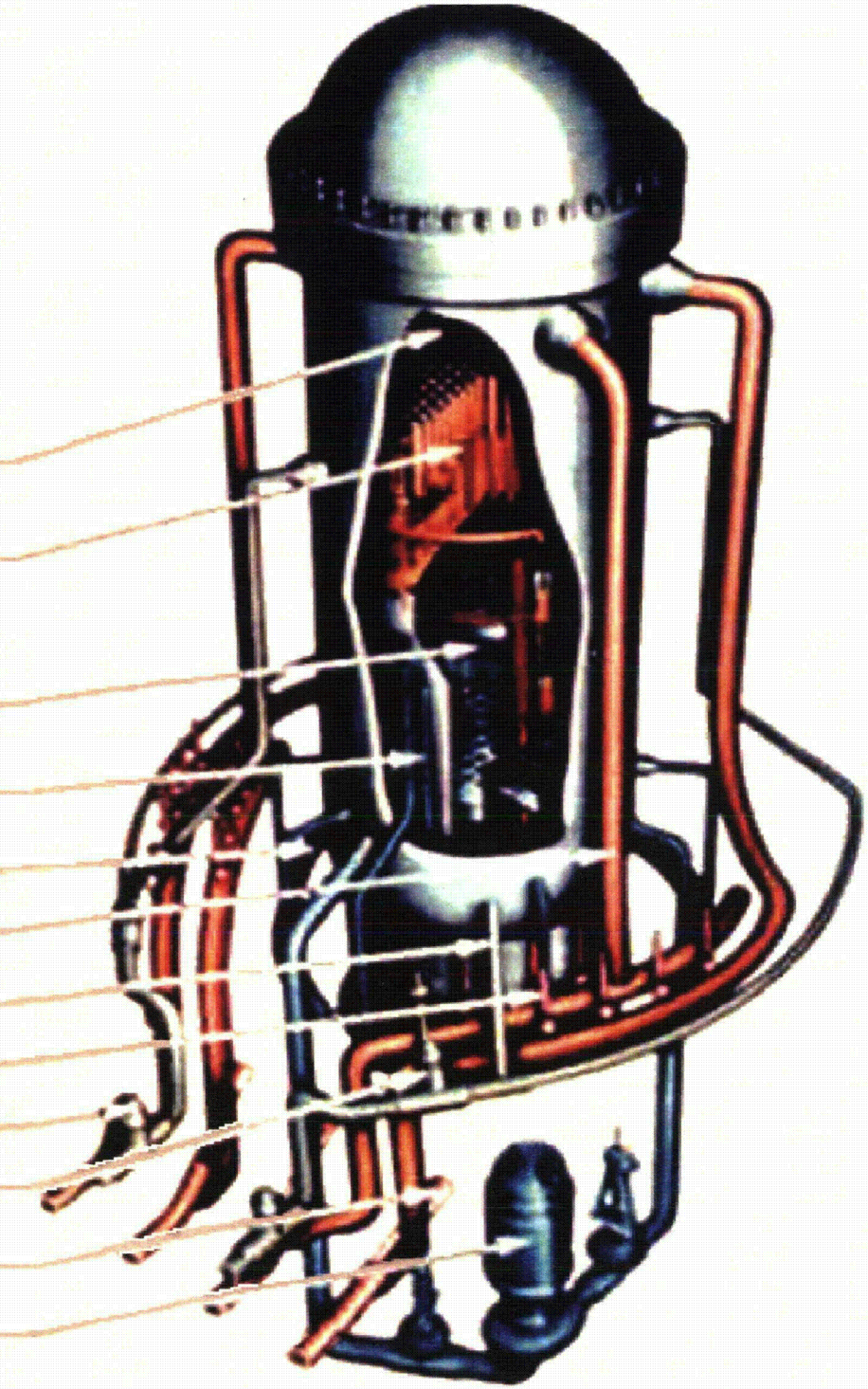
Typical General Electric Boiling Water Reactor





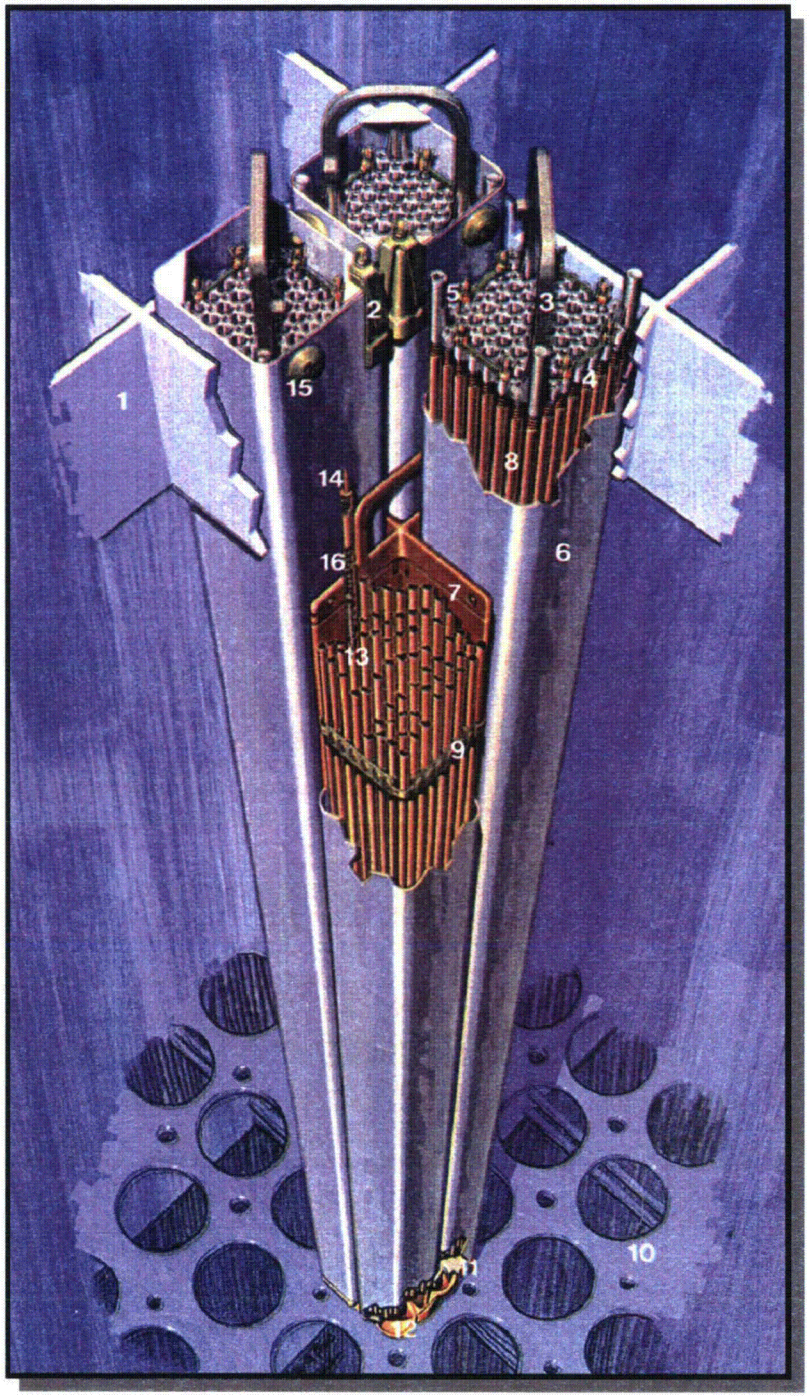
General Electric Boiling Water Reactor Vessel

BWR/3
Nuclear Steam Supply System



Typical BWR Fuel Assemblies

1. TOP FUEL GUIDE
2. CHANNEL FASTENER
3. UPPER TIE PLATE
4. EXPANSION SPRING
5. LOCKING TAB
6. CHANNEL
7. CONTROL ROD
8. FUEL ROD
9. SPACER
10. CORE PLATE ASSEMBLY
11. LOWER TIE PLATE
12. FUEL SUPPORT PIECE
13. FUEL PELLETS
14. END PLUG
15. CHANNEL SPACER
16. PLENUM SPRING



Typical BWR Fuel Assemblies

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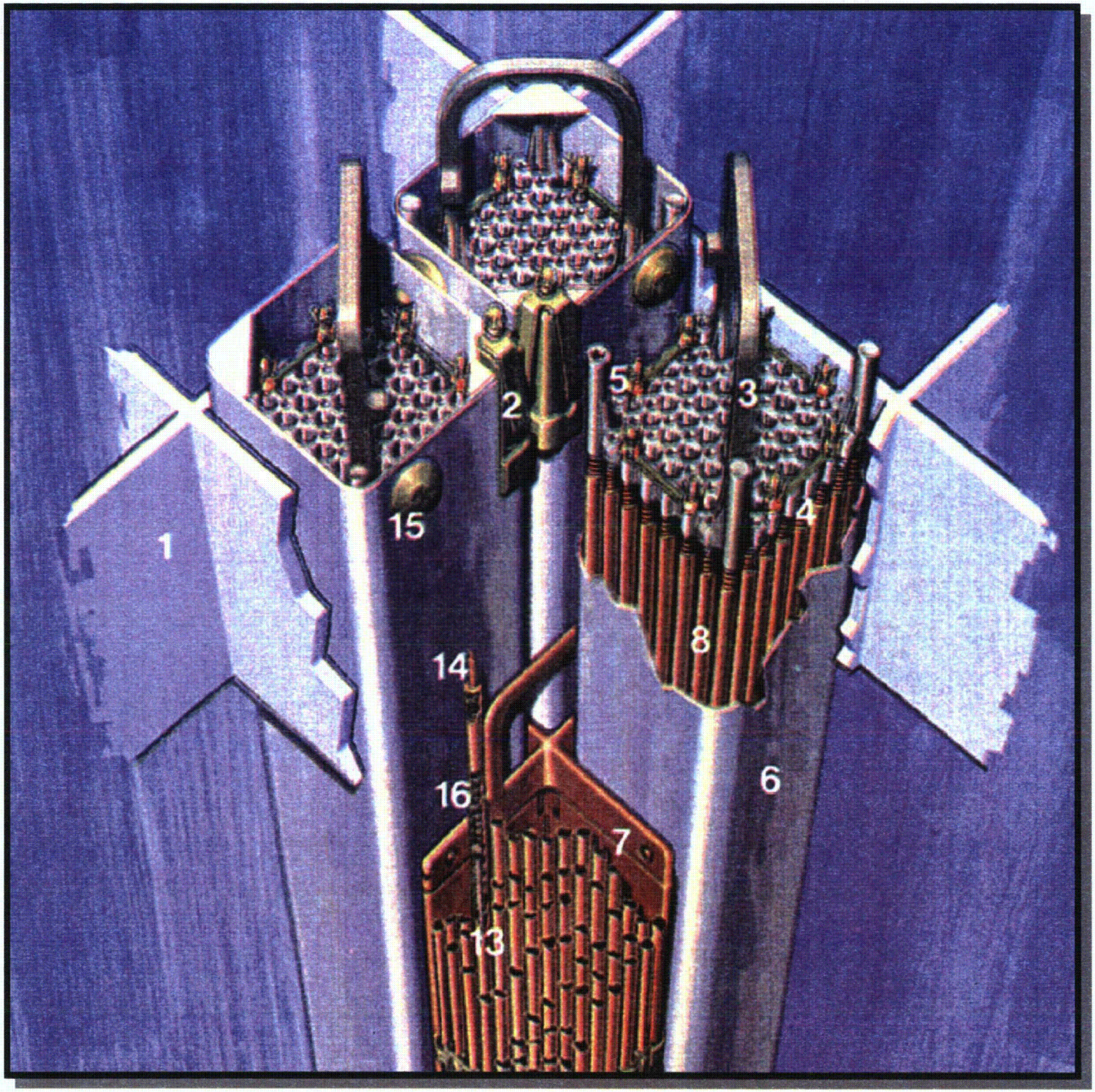
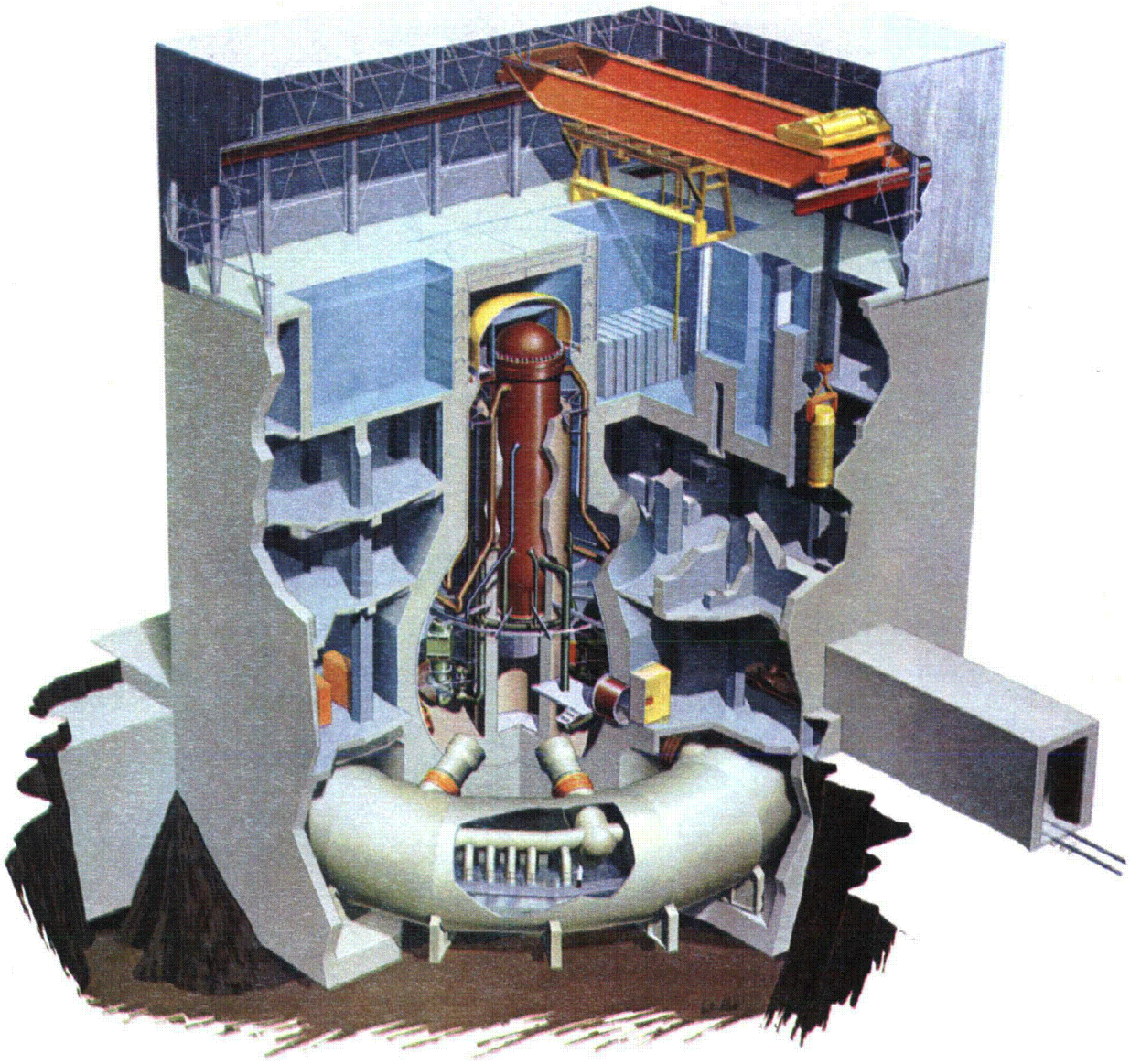
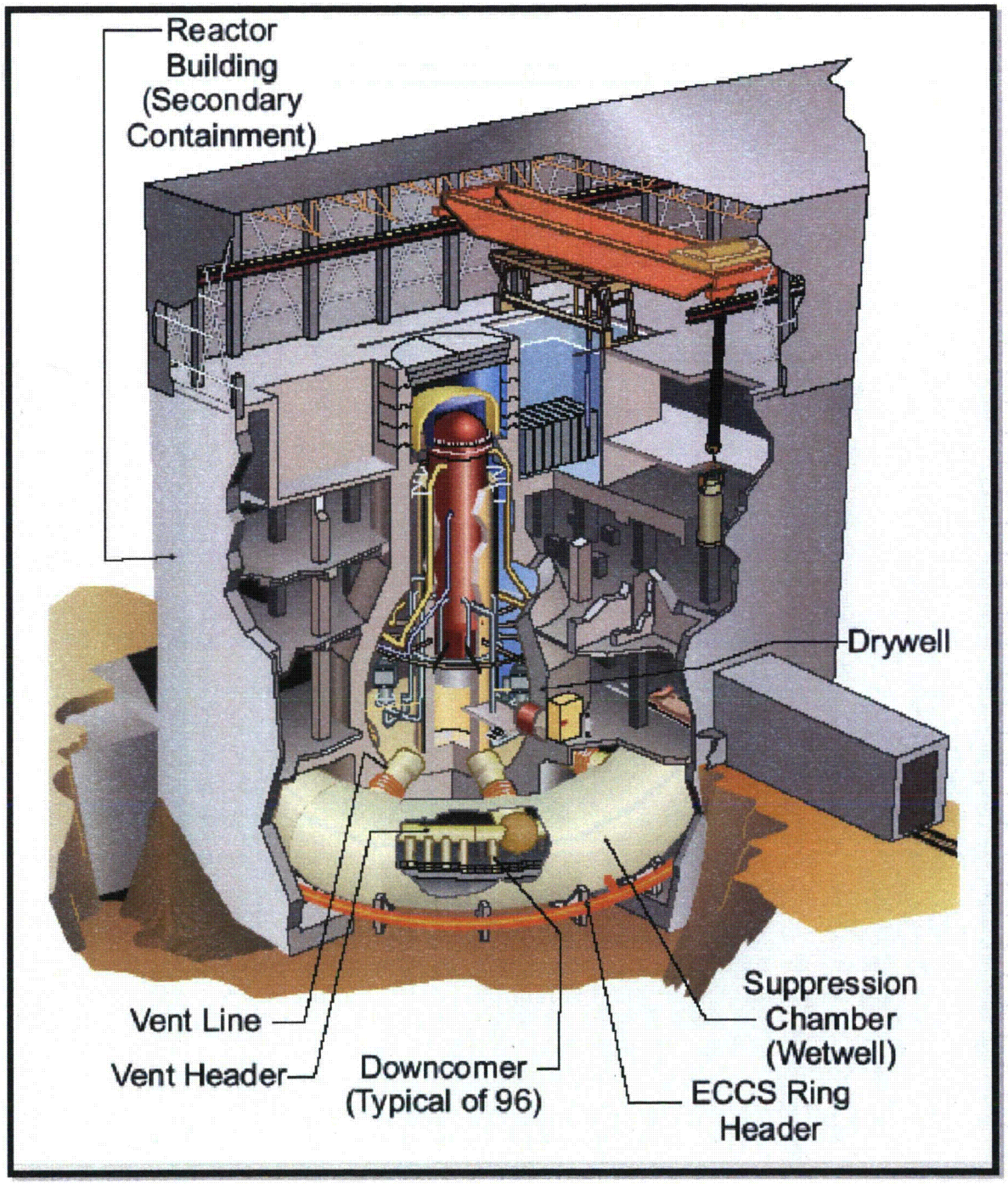
13. FUEL PELLETS
14. END PLUG
15. CHANNEL SPACER
16. PLENUM SPRING





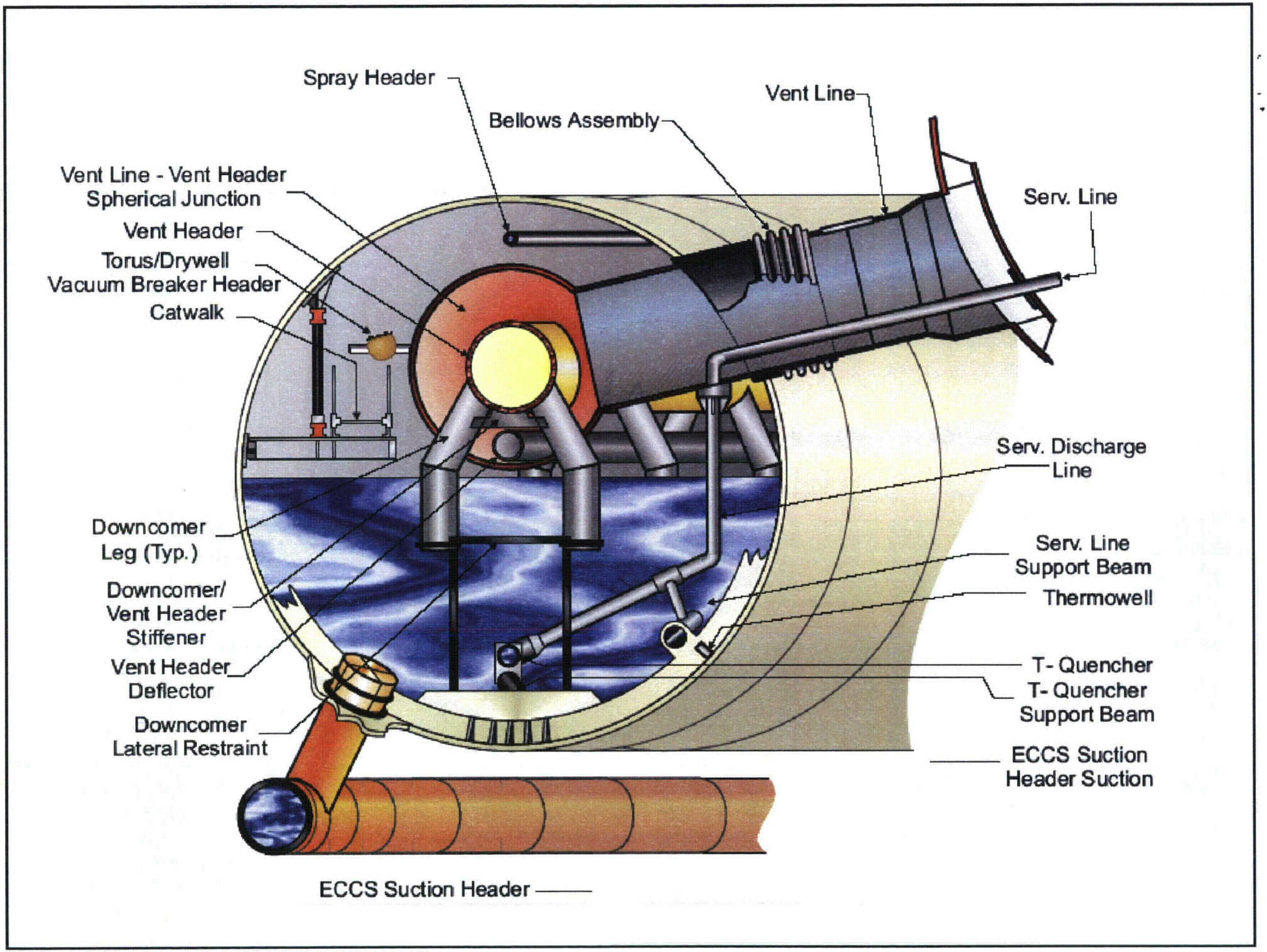
Typical BWR Mark I Containment

- Oyster Creek
- Hatch 1 & 2
- Duane Arnold
- Cooper
- Fitzpatrick
- Pilgrim
- Fermi 2
- Hope Creek
- Peach Bottom 2 & 3
- Nine Mile Point 1
- Dresden 2 & 3
- Brunswick 1 & 2
- Monticello
- Quad Cities 1 & 2
- Browns Ferry 2 & 3
- Vermont Yankee



GE Mark I Containment

- Oyster Creek
- Hatch 1 & 2
- Duane Arnold
- Cooper
- Fitzpatrick
- Pilgrim
- Fermi 2
- Hope Creek
- Peach Bottom 2 & 3
- Nine Mile Point 1
- Dresden 2 & 3
- Brunswick 1 & 2
- Monticello
- Quad Cities 1 & 2
- Browns Ferry 2 & 3
- Vermont Yankee


Spray Header
Bellows Assembly
Vent Line
Vent Line - Vent Header
Spherical Junction
Vent Header
Torus/Drywell
Vacuum Breaker Header
Catwalk
Serv. Line
Serv. Discharge
Line
Downcomer
Leg (Typ.)
Downcomer/
Vent Header
Stiffener
Vent Header
Deflector
Downcomer
Lateral Restraint
Serv. Line
Support Beam
Thermowell
T- Quencher
T- Quencher
Support Beam
ECCS Suction
Header Suction
ECCS Suction Header

From: Schmidt, Rebecca
Sent: Wednesday, March 16, 2011 7:24 PM
To: Weber, Michael; Powell, Amy
Cc: Borchardt, Bill; Virgilio, Martin; McDermott, Brian; Evans, Michele; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael; LIA05 Hoc; ET01 Hoc
Subject: Re: FYI - READY TO DEPLOY

Thanks. Maybe we can meet briefly tomorrow to see when we can deploy

---

From: Weber, Michael
To: Powell, Amy; Schmidt, Rebecca
Cc: Borchardt, Bill; Virgilio, Martin; McDermott, Brian; Evans, Michele; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael; LIA05 Hoc; ET01 Hoc
Sent: Wed Mar 16 19:15:40 2011
Subject: FYI - READY TO DEPLOY

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

Mike

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

301-415-1705
Mail Stop O16E15

XXXX B2b

From: Mroz (Sahm), Sara
Sent: Wednesday, March 16, 2011 9:44 PM
To: McDermott, Brian; OST02 HOC
Cc: ET07 Hoc; Anderson, James
Subject: RE: ACTION: inclusion of additional information in congressional briefing books

Thanks Brian,
We're working on those items.
-Sara

From: McDermott, Brian
Sent: Wednesday, March 16, 2011 8:30 PM
To: OST02 HOC
Cc: ET07 Hoc; Mroz (Sahm), Sara; Anderson, James
Subject: ACTION: inclusion of additional information in congressional briefing books

Please note discussion of additional contents for Congressional briefing books below. Executive briefing team should take action.

Thanks,
Brian

From: Schmidt, Rebecca
Sent: Wednesday, March 16, 2011 7:24 PM
To: Weber, Michael; Powell, Amy
Cc: Borchardt, Bill; Virgilio, Martin; McDermott, Brian; Evans, Michele; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael; LIA05 Hoc; ET01 Hoc
Subject: Re: FYI - READY TO DEPLOY

Thanks. Maybe we can meet briefly tomorrow to see when we can deploy

---

From: Weber, Michael
To: Powell, Amy; Schmidt, Rebecca
Cc: Borchardt, Bill; Virgilio, Martin; McDermott, Brian; Evans, Michele; Sheron, Brian; Leeds, Eric; Haney, Catherine; Johnson, Michael; LIA05 Hoc; ET01 Hoc
Sent: Wed Mar 16 19:15:40 2011
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Mike

Michael Weber
Deputy Executive Director for Materials, Waste, Research,

XXXX-326

State, Tribal, and Compliance Programs
U.S. Nuclear Regulatory Commission

301-415-1705
Mail Stop O16E15

David Decker

From: Droggitis, Spiros
Sent: Wednesday, March 16, 2011 7:31 AM
To: Powell, Amy; Dacus, Eugene; Decker, David; Weil, Jenny; Riley (OCA), Timothy; Shane, Raeann
Cc: Schmidt, Rebecca
Subject: RE: Q&As re: Japan

GBJ just told the WH that he has to testify, but does not intend to make these points unless WH says ok. He may be called to the WH. Please keep all this close at this time. Just trying to keep you guys in the loop. WH need to consult the POTUS before any of this proceeds.

From: Powell, Amy
Sent: Wednesday, March 16, 2011 7:12 AM
To: Droggitis, Spiros; Dacus, Eugene; Decker, David; Weil, Jenny; Riley (OCA), Timothy; Shane, Raeann
Cc: Schmidt, Rebecca
Subject: Re: Q&As re: Japan

Yes, I noticed that we time traveled a bit...

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

Sent from my Blackberry

From: Droggitis, Spiros
To: Powell, Amy; Dacus, Eugene; Decker, David; Weil, Jenny; Riley (OCA), Timothy; Shane, Raeann
Cc: Schmidt, Rebecca
Sent: Wed Mar 16 07:07:25 2011
Subject: Re: Q&As re: Japan

This is great, except for the error in the first line - the date.

From: Powell, Amy
To: Droggitis, Spiros; Dacus, Eugene; Decker, David; Weil, Jenny; Riley (OCA), Timothy; Shane, Raeann
Cc: Schmidt, Rebecca
Sent: Wed Mar 16 06:06:40 2011
Subject: Q&As re: Japan

Attached is a document of Q&A responses prepared by OPA and technical experts in the Ops Ctr. We CANNOT send this document in its entirety down to the Hill as is, but we can use it to respond to individual questions. I know that we "owe" answers to questions to a number of staffers. Please read through here and see if answers are provided to questions that came into you anf get back to the requesting staff. This may also help those of you in the Ops Ctr with calls.

Questions that speculate about what could happen, compare Japan regs with US, and other speculative Qs are NOT included here. Just not the focus now.

Thanks
Amy

Amy Powell

XXXX-327

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

Sent from my Blackberry

From: Harrington, Holly
To: Coggins, Angela; Taylor, Robert
Cc: McIntyre, David; Schmidt, Rebecca; Powell, Amy
Sent: Tue Mar 15 21:51:03 2011
Subject: RE: Japanese-Rx-Incident addtl questions - March-14-2011 doc.docx

Angela, Amy, Becki – These are fully approved by relevant folks in the Op Center. For your use. I have not added to WebEOC yet as it's not clear these should also be used by others . . .

From: Coggins, Angela
Sent: Tuesday, March 15, 2011 8:36 PM
To: Taylor, Robert
Cc: Harrington, Holly; McIntyre, David; Schmidt, Rebecca; Powell, Amy
Subject: Re: Japanese-Rx-Incident addtl questions - March-14-2011 doc.docx

Thanks so much!! I appreciate all the effort!
Angela Coggins
Policy Director
Office of Chairman Gregory B Jaczko
US Nuclear Regulatory Commission
angela.coggins@nrc.gov/301-415-1828

From: Taylor, Robert
To: Coggins, Angela
Cc: Harrington, Holly; McIntyre, David; Schmidt, Rebecca; Powell, Amy
Sent: Tue Mar 15 20:29:17 2011
Subject: Japanese-Rx-Incident addtl questions - March-14-2011 doc.docx

Angela,

We have done our best to incorporate your questions into the Chairman's Q&As that were developed earlier today and provided to OCA. The updated set of Q&As is undergoing ET review and we will hopefully have it to you in the near future. The attached provides a roadmap of where we believe the responses can be found. A few questions fell into the broader "After this event is over, we will determine what changes need to be made in the US" message. I did not directly incorporate them, but you can see a draft response in the attached.

Regarding the third question about past events, I did not try to evaluate all of the events you listed. I would propose sticking to the party line, in that, "The NRC routinely reassess its regulatory requirements in light of new operating experience and plant events."

Regards,
Rob

From: LIA10 Hoc
Sent: Thursday, March 17, 2011 12:43 AM
To: LIA02 Hoc
Attachments: fukushima prefecture news v2.docx

XXXX-328

9:08 17 March 2011

It was discovered on the 16th that most functions of the national government's base for nuclear emergencies, "Nuclear Power Emergency Response Center" (off-site center) in Ookuma Town were lost due to earthquake damage.

The Nuclear and Industrial Safety Agency of METI stated "this was unexpected, and it is a problem that functions cannot be carried out."

NISA, on the 11th, after the earthquake, set up a local Disaster Response Headquarters at the off-site center.

However, there was a power outage, and an attempt to use mobile generators, but electrical systems have not recovered.

It is able to gather information related to nuclear power plant damage using satellite circuits, but it cannot perform all of its functions, such as videoconferences with other prefectural disaster response HQs or dissemination of information to municipalities.

For this reason, NISA moved the center to the main building of the Government of Fukushima Prefecture, and deputy governor Masao Uchibori, who had been participating in the center, returned to Fukushima City.

The national government is managing and operating the center as an emergency response base of operations where relevant national, prefectural and municipal agencies can comprehensively address the nuclear power plant disaster.

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 17, 2011 9:36 AM
To: Tinkler, Charles; Lee, Richard
Cc: Sheron, Brian; Uhle, Jennifer
Subject: Fw: Assessement of cooling requirements for Fukushima units 1-3

----- Original Message -----
From: Gavrilas, Mirela
To: Case, Michael; Gibson, Kathy
Sent: Thu Mar 17 09:23:42 2011
Subject: FW: Assessement of cooling requirements for Fukushima units 1-3

fyi

-----Original Message-----
From: Michael Corradini [mailto:corradini@engr.wisc.edu]
Sent: Thursday, March 17, 2011 9:23 AM
To: Farmer, Mitchell T.
Cc: Tinkler, Charles; Basu, Sudhamay; Lee, Richard; Gavrilas, Mirela
Subject: RE: Assessement of cooling requirements for Fukushima units 1-3

Mitch - I agree with your analysis. I am doing RASCAL calcs about dose effects.
--

Michael Corradini, Chair
Engineering Physics
University of Wisconsin
(608)263-1648 [Fax: 3-7451]
corradini@engr.wisc.edu
http://www.engr.wisc.edu/ep

Quoting "Farmer, Mitchell T." <farmer@anl.gov>:

> Hi everyone,
>
> I want to make two final sugestions that I thought of this morning and
> I'm sending it to you in hopes that it can be factored into the
> accident management at the site ASAP. My hand calculations below
> indicated that at the fire pumping rate of 30 T/hour through the
> cores (?) outlet core temp on unit 1 should go subcooled today.
> However, it's going to be another week at least for units 2-3. I've
> also heard about salt crystalization concerns, and that may be
> detrimental to flow passages through the core/core debris. So, if they
> are getting more equipment on site, it would be very beneficial to
> double the pumping capacity for units 2/3 to try to get those
> subcooled ASAP. This would: 1) decrease crystalization rate of salt
> and 2) really reduce source term from the cores. Then, the only
> steaming you should be able to see from the plants would be the spent
> fuel pools which they are attacking now. This would help clarify some
> of the aerial data from units 2-3 iof the only steam source were the
> pools.

>
> Second, I don't know if the drywell plugs are still in place, but if
> you flood the drywell to the extent that it fills out the top, then
> some of the water spilling onto the deck would make it into the SFP??
>
> This is my last direct contact, we now have to go through DOE, but I
> want to get info out as fast as possible so that it can help if
> viable.
>
> Praying for the Japanese,
> Mitch
> _____
> From: Farmer, Mitchell T.
> Sent: Monday, March 14, 2011 1:31 PM
> To: 'Tinkler, Charles'; Basu, Sudhamay; Lee, Richard; Gavrilas, Mirela
> Subject: FW: Assessement of cooling requirements for
> Fukushima units 1-3
>
>
> FYI.
> Mitch
> _____
> From: Farmer, Mitchell T.
> Sent: Monday, March 14, 2011 1:22 PM
> To: Grandy, Christopher; Khalil, Hussein S.; Peters, Mark T.;
> Sattelberger, Alfred P.
> Cc: 'corradin@cae.wisc.edu'; Seidensticker, Ralph W.
> Subject: Assessement of cooling requirements for Fukushima units 1-3
>
> All,
>
> I did a few back of the envelope calculations to scope out what the
> cooling requirements will be at Fukushima units 1-3 in the event that
> they are not able to reestablish power to the site and, thereby,
> normal cooling functions at these plants.
>
> The limited information I have suggests that they are supplying 30
> MT/hour of seawater to unit 1, and so I'll assume that the same is
> currently going to units 2 and 3. To put this in perspective, that
> amount of cooling flow can remove 2.8 MW while remaining subcooled at
> atmospheric conditions, and up to 21.7 MW if this amount of water is
> completely boiled off. Ideally, you would like to get to subcooled
> outlet core conditions so you'll stop forming steam and then you can
> stop the venting that is causing concern right now.
>
> That amount of heat removal needs to be compared to the decay heat
> levels in these reactors to determine when subcooled conditions can be
> reached. Unit 1 was 460 Mwe and Units 2- 3 were 784 Mwe per Chris's
> previous email. Thus, I estimate the thermal power levels of these
> reactors to be 1200 MWt and 2000 MWt, respectively. After three days
> (or currently), the power level for a U core would fall to about 0.4 %
> assuming that the reactors had operated for 200 full-power days before
> the earthquake (a little higher for the MOX core but I don't have data
> to assess that). Thus, decay heat in Unit 1 is now about 4.8 MW and
> for Units 2/3 it's about 8 MWt. Thus, I suspect they're still venting
> steam at all three units. I then looked at the times when the decay
> heat will fall below the level at which subcooling can be achieved (ie

> 2.8 MWt core decay heat level) and for unit 1 that is 6 days total (ie
> 3 days from now) and for units 2 and 3 it will be about 16 days (ie 13
> more days).
>
> This is a worst case scenario that assumes they can't get electricit
> back to the site and establish normal cooling function; ie they have
> to rely on sea water injection. Also, I assumed 200 full power days;
> the power level could be less or a little more if I
> overestimated/understimated operation times.
>
> As far as coolability of the degraded cores, my opinion is that units
> 1 and 3 are in coolable configurations; it's been 3 days now and if
> the configuraiton was not coolable the material most likely would have
> failed the reactor pressure vessel. I guess the jury is still out on
> Unit 2; I think the entire core has gone dry at least once. The good
> news is that the decay heat is way down from what it was a few hours
> after the accident was initiated.
>
> Mitch
>
>

From: LIA05 Hoc
Sent: Thursday, March 17, 2011 9:48 AM
To: LIA11 Hoc
Attachments: ESF 15 Info Update (scroll) Japan Reactor Crisis.doc

FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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XXXX-320

Japan Nuclear Reactor Crisis
March 11-16, 2011

51	**03/16/11** **Federal and State government website WWW.USA.GOV for Japan Incident** USA.gov will create a page at http://www.usa.gov/Japan2011 to aggregate high-value information from across federal and state governments. The site should be live by noon, 3/17 USA.gov team will create a widget for the page and share code with the Federal web managers forum. The widget should be live by noon, 3/18 Sarah Crane (USA.gov) will act as main point of contact for agencies wishing to include or update information on the page. Sarah.crane@gsa.gov or 202-208-5855 or 202-309-4661 cell
50	**03/16/11** **Potassium Iodide (KI) FAQ (CDC)** **http://emergency.cdc.gov/radiation/ki.asp**
49	**03/16/11** **Arizona** Update FAQ's Regarding Nuclear Reactors in Japan (Posted on March 16, 2011, at 6:45 p.m) The events in Japan do not currently pose a public health risk in Arizona, nor is a risk to public health in Arizona expected in the future. At this time, there is no detectable increase in radiation levels in Arizona. Due to our distance from Japan, it is unlikely that future levels will be high enough to impact short or long term health. Federal, state, and local agencies are monitoring the situation. It is not necessary to have potassium iodide (KI) on hand. The WHO and FDA recommend KI only when people are exposed to high levels of radiation. http://www.azein.gov/azein/default.aspx
48	**03/16/11** **NRC** provides protective action recommendations based on U.S. guidelines Under the guidelines for public safety that would be used in the United States under similar circumstances, the NRC believes it is appropriate for U.S. residents within 50 miles of the Fukushima reactors to evacuate. **http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-050.pdf**
47	**03/16/11** **Oregon Public Health Division** continues monitoring: no public health risk from radiation Updated Wednesday, March 16, 2011, 6:19 PM: UPDATED FACT SHEET 03-16-2011, 6:19 PM: Ways to Protect Yourself from Radiation Exposure http://public.health.oregon.gov/Preparedness/CurrentHazards/Documents/Factsheets/factsheet-protection-event.pdf
46	**03/16/11**

	Washington State Dept of Health - Information *updated March 16, 2011* Japanese Earthquake 2011 - Why the Japanese nuclear incidents are not a health threat in Washington Radiation from the nuclear power plants in Japan is not a health risk for Washington. Since the failure of the power plants in Japan, radiation levels in Washington have not climbed above normal background levels and we do not expect they will. Several factors play a role in protecting us from the release of radiation occurring at the damaged reactors in Japan: • Most of the radioactive material is contained at the damaged plants; even if radioactive material reaches the upper atmosphere, it would not reach Washington in concentrations high enough to cause a health risk. • The radioactive material that was released did not reach the upper atmosphere where it could be carried toward North America by the jet stream in amounts that would cause public health impact... http://www.doh.wa.gov/Topics/japan-faq.htm http://www.doh.wa.gov/Topics/japan/safe.htm
45	**03/16/11** **South Carolina** - Given the recent earthquake and concerns over radiation and nuclear issues in Japan, SCDHEC has this document (pdf) to give insight into nuclear power plant operations and radiation topics here in South Carolina. The document includes the most frequently asked questions and answers in: • South Carolina Radiation History/Overview • Radiation Basics • Radiation Health • How Nuclear Power Plants Work
44	**03/16/11** **CBP** - Response to query on questions regarding screening and today's radiation alarms. "U.S. Customs and Border Protection (CBP) is monitoring developments in Japan carefully and is specifically assessing the potential for radiological contamination associated with the ongoing impact of the earthquake and tsunami to Japan's nuclear facilities. 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. No aircraft entering the United States today tested positive for radiation at harmful levels. To address radiological and nuclear risks, 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. In the air environment, CBP frontline personnel are equipped with Personal Radiation Detectors (PRDs) that can detect the presence of radiological materials, and all airports have more sensitive Radiation Isotope Identification Devices (RIIDs) to determine both the presence and type of radiation encountered. Travelers who manifest signs of radiation sickness are referred to health authorities and

	provided appropriate treatment. At seaports, and in its international mail and express consignment facilities, CBP continues to use sensitive, large-scale Radiation Portal Monitors (RPM) and scans all maritime cargo and express consignment and mail arriving from Japan. CBP maintains similar protocols for identifying and resolving radiation alarms in these operations and will deny entry to contaminated cargo and mail. 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."
43	**03/16/11** **US Coast Guard statement to National Public Radio etc:** "At this time, we have not increased radiologic screening of vessels at U.S. ports as the information we have available to us indicates such measures are not necessary, however, we, and our port safety and security partners, continue to follow our port state control processes for ships calling upon U.S. ports in which passive monitoring is incorporated. We are working closely with the government of Japan, the Nuclear Regulatory Committee and other agencies to determine if there are any potential risks to shipping associated with conditions at nuclear power plants impacted by the earthquake or tsunami. If warranted, MARAD and the U.S. Coast Guard will issue advisories to the maritime community providing them information on how best to avoid those risks. We will provide more information as it becomes available."
42	**03/16/11,** Review draft of federal Q/A communications document prior to Thursday's 10:00 a.m. NICCL. Add additional questions and communications points as needed based on the calls you're receiving from reporters.
41	**03/16/11, 3:30 p.m.** SICCL call to discuss Japan Reactor Crisis
40a	**03/16/11** **Topline Federal Messages** IF ASKED about any questions about harmful radiation headed towards the US: **NRC Chairman Jaczko continues to say the following: "You just aren't going to have any radiological material that, by the time it traveled those large distances, could present any risk to the American public."** Topline Points • The United States is continuing to do everything in its power to help Japan and American citizens who were there at the time of these tragic events. • USAID is coordinating the overall U.S. government efforts in support of the Japanese government's response and are currently directing individuals to www.usaid.gov for information about response donations. • The President is being kept up to date and is constantly being briefed by his national security staff. The National Security staff in the White House is also coordinating a large interagency response with experts meeting around the clock to monitor the latest information coming out of Japan. • We have offered our Japanese friends includes disaster response experts, search and rescue teams, technical advisers with nuclear expertise and logistical support from the United States military. • In response to the deteriorating situation at the Fukushima Nuclear Power Plant, the United States Nuclear Regulatory Commission (NRC), the Department of Energy and other technical

experts in the U.S. Government have reviewed the scientific and technical information they have collected from assets in country, as well as what the Government of Japan has disseminated. Consistent with the NRC guidelines that would apply to such a situation in the United States, we are recommending, as a precaution, that American citizens who live within 50 miles (80 kilometers) of the Fukushima Nuclear Power Plant evacuate the area or to take shelter indoors if safe evacuation is not practical.

- We want to underscore that there are numerous factors in the aftermath of the earthquake and Tsunami, including weather, wind direction and speed, and the nature of the reactor problem that affect the risk of radioactive contamination within this 50 mile radius or the possibility of lower-level radioactive materials reaching greater distances.

- To support our citizens there, the Embassy is working around the clock, we have our consular services available 24 hours a day to determine the whereabouts and well-being of all U.S. citizens in Japan. U.S. citizens in need of emergency assistance should send an e-mail to JapanEmergencyUSC@state.gov with detailed information about their location and contact information, and monitor the U.S. Department of State website at travel.state.gov.

As I said earlier, we have offered our Japanese friends disaster response experts, search and rescue teams, technical advisers with nuclear expertise and logistical support from the United States military.

- Secretary Chu announced that DOE offered and Japan accepted an Aerial Measuring System capability, including detectors and analytical equipment used to provide assessments of contamination on the ground. In total, the DOE team includes 34 people.

- USAID set up a Response Management Team in DC and sent a Disaster Assistance Response Team to Tokyo, which includes people with nuclear expertise from the Departments of Energy and Health and Human Services as well the Nuclear Regulatory Commission (NRC). The NRC members are experts in boiling water nuclear reactors and are available to assist their Japanese counterparts.

- Two Urban Search and Rescue Teams (LA County and Fairfax County teams) which total 144 members plus 12 search and rescue canines and up to 45 metric tons of rescue equipment have begun searching for survivors.

- The Department of Defense has the USS Reagan on station off the coast of Japan and is currently using an air facility in Misawa as a forward operating base.

- The American Red Cross (ARC) International Services team is supporting the Japanese Red Cross Society (JRCS) to assess the impact, determine response efforts, and assist the people of Japan.

- USAID is hosting a daily conference call with Congressional staff, including participation from DoD, DoS, NRC, DoE, and HHS. The U.S. officials will continue to provide a brief overview of each agency's efforts in the response to Japan and respond to questions from the Congressional staff regarding humanitarian assistance, military assistance, and the nuclear plant situation.

- Currently nearly 5300 US military members are supporting the disaster relief efforts. There are 8 ships, including the aircraft carrier USS Ronald Reagan, transport aircraft and more than 100 military helos are being repositioned to northern Japan to support the efforts.

- The US military has flown reconnaissance flights and provided the Japanese government with images of the areas affected by the earthquake and tsunami. Search and rescue flights and missions along the coast continue, relief operations including delivery of food, water and other

	relief supplies also continue. • Yokota Air Base is serving as a humanitarian relief operations staging area and Misawa Air Base is serving as both a logistical hub for humanitarian relief and rescue workers as well as an operating base for U.S., Japanese and other international helos and aircraft. Here at a home, the government is doing a number of things as well. • The US Government will be studying every aspect of the Japanese disaster and the Japanese government's response, with the goal of learning as much as possible from that review. • As the Nuclear Regulatory Commission has said, we do not expect to see radiation at harmful levels reaching the U.S. from damaged Japanese nuclear power plants. As part of the federal government's continuing effort to make our activities and science transparent and available to the public, the Environmental Protection Agency (EPA) will continue to keep all RadNet data available in the current online database. In addition, EPA plans to work with its federal partners to deploy additional monitoring capabilities to parts of the western U.S. and U.S. territories. • As always, EPA is utilizing this existing nationwide radiation monitoring system, RadNet, which continuously monitors the nation's air and regularly monitors drinking water, milk and precipitation for environmental radiation. The RadNet online searchable database contains historical data of environmental radiation monitoring data from all fifty states and U.S. territories. • The FDA and USDA continues to ensure all our imported food remains safe as they do everyday • If there were to be a nuclear accident here, we are prepared to respond and FEMA and the Department of Homeland Security exercise these preparedness plans with the rest of the government and state and local officials as well. Release of radioactive materials can be accidental or intentional and we have a detailed plan to respond regardless of the cause. The Nuclear/Radiological Incident Annex to the National Response Framework outlines which department or agency would have the lead for the Federal response depending on the source and type of release. For example, the Nuclear Regulatory Commission (NRC) would coordinate a response to a release at nuclear power facilities licensed by the NRC. The Department of Energy would coordinate a response to a release involving nuclear weapons in DOE custody. The Department of Homeland Security would coordinate a response to a deliberate attack using improvised nuclear devices or radiological dispersal devices. • Given the range of potential causes, from an earthquake to a terrorist attack, the plan provides the flexibility and agility we need to respond aggressively and effectively. In addition, state and local officials and nuclear facilities have detailed emergency plans that include specific protective actions, evacuation routes, and methods to alert the public of actions to take in the event of an emergency. There is a robust and active nuclear power plant accident exercise program that includes Federal, State, and local involvement to test plans and keep them current, and just last year we conducted such an exercise. Federal protective action guides are used at all nuclear power plants and are widely accepted and used in planning and exercises, and we will continue our efforts to plan and prepare for the safety and security of the American people.
40	**03/16/11** Department of State: U.S. Ambassador John V. Roos

	The United States Nuclear Regulatory Commission (NRC), the Department of Energy and other technical experts in the U.S. Government have reviewed the scientific and technical information they have collected from assets in country, as well as what the Government of Japan has disseminated, in response to the deteriorating situation at the Fukushima Nuclear Power Plant. Consistent with the NRC guidelines that apply to such a situation in the United States, we are recommending, as a precaution, that American citizens who live within 50 miles (80 kilometers) of the Fukushima Nuclear Power Plant evacuate the area or to take shelter indoors if safe evacuation is not practical... **http://japan.usembassy.gov/e/p/tp-20110317-01.html**
39a	**03/16/11** Department of State: Ambassador John V. Roos Speaks to the Press **http://japan.usembassy.gov/e/p/tp-20110316-06.html**
39	**3/16/11, 9:30 a.m.** Washington State update Radiation Monitoring Curious about how radiation is monitored in our area? Our partners at the state Department of Health have provided more information about how this works. There are four monitoring stations in Washington, located in Seattle, Olympia, Richland, and Spokane.
38	**03/16/11 11:53 A.M.** CALIFORNIA Public Health FAQs about Radiation **Q. What's the risk for California from the current nuclear power emergency in Japan?** A. At present, the Nuclear Regulatory Commission (NRC) indicates Japan's nuclear emergency presents no danger to California **Q. Does California have a plan in place to respond to a radiological emergency?** A. CDPH has a plan for response to radiological emergencies, called the Nuclear Emergency Response Plan. **Q. Does California stockpile supplies for such an emergency?** A. California does stockpile emergency supplies, including potassium iodide (KI) tablets. Potassium iodide tablets are not recommended at this time, and can present a danger to people with allergies to iodine, shellfish or who have thyroid problems. Potassium iodide tablets should not be taken unless directed by authorities. **Q. Why are potassium iodide tablets used during emergencies involving radiation exposure?** A. Potassium iodide tablets may be recommended to individuals who are at risk for radiation exposure or have been exposed to excessive radiation to block the body's absorption of radioactive iodine. Using potassium iodide when inappropriate could have potential serious side effects such as abnormal heart rhythms, nausea, vomiting, electrolyte abnormalities and bleeding. **Q. Should I be taking potassium iodide to protect myself?** A. No. Potassium iodide tablets are not recommended at this time, and can present a danger to people

	with allergies to iodine, shellfish or who have thyroid problems. **Q. Should I purchase potassium iodide as a precaution?** A. No. Potassium iodide is only appropriate within a very close proximity to a nuclear event. Using potassium iodide when inappropriate could have potential serious side effects such as abnormal heart rhythms, nausea, vomiting, electrolyte abnormalities and bleeding. http://www.cdph.ca.gov/Pages/RadiationFAQS2011.aspx
37	**03/16/11 10:32 A.M.** NICCL call to discuss Japan Reactor Crisis.
36f	**03/15/11** KING COUNTY (WA) EMERGENCY MANAGEMENT http://www.kingcounty.gov/News/JapanResponse.aspx Response to the crisis in Japan The recent earthquake and tsunami have caused unprecedented devastation to our neighbors across the pacific. Our thoughts are with the Japanese people, and we have also been monitoring the unfolding events at the Japanese nuclear reactors. Experts at the Nuclear Regulatory Commission and the Washington Department of Health do not expect significant levels of radioactivity in our state or any health risk from the situation in Japan.
36e	**03/15/11** Washington State - Information updated March 15, 2011 Japanese Earthquake 2011 - What does it mean for Washington? Nuclear power plants in Japan were damaged by the massive earthquake last week. There have been concerns about the amounts of radiation that may be released and how it might affect Washington. There is no public health threat in Washington as a result of the events at Japan's nuclear facilities. The information below will give you additional information and answers to your questions and concerns. **FAQ.** This question and answer sheet answers most of the concerns people have about radiation exposure in the Northwest.
36d	**03/15/11** WASHINGTON STATE DEPARTMENT OF HEALTH Nuclear event in Japan poses no health risk in Washington; state monitoring OLYMPIA – The state Department of Health is conducting ongoing air monitoring for radiation to see if the nuclear plant incident in Japan has affected radiation levels in Washington. There have been no elevated readings. The agency's Radiation Protection staff expects no public health risk in Washington, and the monitoring is precautionary. If the situation changes in Washington, the Department of Health will inform the public.
36c	**03/15/11**

	NEWS RELEASE: Portland-Area Radiation Experts Announce Inter-Agency Press Conference - State and local radiation officials will hold a press conference on March 16, 2011, at 11:00 am at Portland Fire & Rescue's Training Center located at 4800 NE 122nd Avenue in Portland. Media is invited to attend. A panel of experts will be on hand to address questions and concerns about radiation-related health risks to Oregonians stemming from Japan's earthquake and compromised nuclear facilities. Information will be provided on measures that public health officials are taking to monitor air quality for radiation levels resulting from the disaster, as well as how the participating agencies are and will continue to work together to protect the health and safety of Oregonians.
36b	**03/15/11** OREGON PUBLIC HEALTH Oregon air quality monitoring. State continues monitoring: no public health risk from radiation Updated Tuesday, March 15, 2011, 5:53 PM: UPDATED FACT SHEET 03-15-2011, 5:53 PM: No Health Risk from Japanese Radiation Events UPDATED QUESTIONS AND ANSWERS 03-15-2011, 5:53 PM: Event in Japan and Monitoring in Oregon
36a	**03/15/11** ALASKA DIVISION OF EMERGENCY SERVICES State Monitors Damaged Japanese Reactor Situation; -No Immediate or Anticipated Threat in Alaska- Anchorage, ALASKA - The Alaska Departments of Military and Veterans Affairs and Health and Social Services continue to monitor the evolving situation in Japan following Friday's earthquake. According to the latest information available from the Federal Emergency Management Agency (FEMA) there is no immediate, or anticipated, threat of radiation exposure in Alaska. According to scientists with the agency there doesn't seem to be any damage that could be severe enough to release energy sufficient to get radioactive material high enough in the atmosphere that it could transport on a global scale. Alaska officials will continue to monitor the situation closely and coordinate with federal agencies. For more information we recommend following the Nuclear Regulatory Commission's blog at http://public-blog.nrc-gateway.gov
36	**03/15/11 6:42 P.M.** Radiation from Japanese Nuclear Plant Poses No Health Threat to Arizona http://www.azein.gov/azein/Lists/Announcements/DispForm.aspx?ID=1401&Source=http%3A%2F%2Fwww%2Eazein%2Egov%2Fazein%2Fdefault%2Easpx
35	**03/15/11 6:41 P.M.** FAQ's on Radiation Impacts to Arizona

	http://www.azein.gov/azein/Lists/Announcements/DispForm.aspx?ID=1400&Source=http%3A%2F%2Fwww%2Eazein%2Egov%2Fazein%2Fdefault%2Easpx
34	**03/15/11** The Blog: White House Press Secretary Jay Carney gives an update on the response to the situation in Japan at the outset of his press briefing http://www.whitehouse.gov/blog/2011/03/15/update-japan-press-secretary-carney
33	**03/15/11** NNSA Releases Pictures, Video of Consequence Management Response Teams Deploying to Japan WASHINGTON, D.C. – The National Nuclear Security Administration, a semi-autonomous agency within the U.S. Department of Energy, has released photographs and video of its Consequence Management Response Teams deploying from Nellis Air Force Base in Las Vegas, Nevada, to assist Japanese efforts in the response to the March 11 earthquake and tsunami. On March 15, 33 experts from NNSA and the Department of Energy arrived in Japan and have been deployed to U.S. consulates and military installations in Japan. These teams have the skills, expertise and equipment to help assess, survey, monitor and sample areas for radiation. They include smaller groups that could be sent out to gather technical information in the area. The 33 team members joined another six DOE personnel already in Japan. The pictures are available here and the video is available here.
32	**03/15/11** NRC ANALYSIS CONTINUES TO SUPPORT JAPAN'S PROTECTIVE ACTIONS NRC analysts overnight continued their review of radiation data related to the damaged Japanese nuclear reactors. The analysts continue to conclude the steps recommend by Japanese authorities parallel those the United States would suggest in a similar situation. The Japanese authorities Monday recommended evacuation to 20 kilometers around the affected reactors and said that persons out to 30 kilometers should shelter in place. Those recommendations parallel the protective actions the United States would suggest should dose limits reach 1 rem to the entire body and 5 rem for the thyroid, an organ particularly susceptible to radiation uptake. The currently reported Japanese radiation measurements are well below these guidelines. A rem is a measure of radiation dose. The average American is exposed to approximately 620 millirems, or 0.62 rem, of radiation each year from natural and manmade sources. www.nrc.gov
31	**03/15/11** EPA Statement on Air Monitoring Effort 3/15/2011 WASHINGTON - As the Nuclear Regulatory Commission has said, we do not expect to see radiation at harmful levels reaching the U.S. from damaged Japanese nuclear power plants. As part of the federal government's continuing effort to make our activities and science transparent and available to the public, the Environmental Protection Agency (EPA) will continue to keep all RadNet data

	available in the current online database. In addition, EPA plans to work with its federal partners to deploy additional monitoring capabilities to parts of the western U.S. and U.S. territories. As always, EPA is utilizing this existing nationwide radiation monitoring system, RadNet, which continuously monitors the nation's air and regularly monitors drinking water, milk and precipitation for environmental radiation. The RadNet online searchable database contains historical data of environmental radiation monitoring data from all fifty states and U.S. territories. http://www.epa.gov/radiation/statement.html
30	**03/15/11 6:26 P.M.** Pacific Public Health Messaging: Radiation Release in Japan: DOH ADVISES PUBLIC TO AVOID INGESTING POTASSIUM IODIDE; NO INCREASED RISK OF RADIATION EXPOSURE HONOLULU – The damage to nuclear reactors in Japan has led to concerns about radiation exposure in Hawaii and other parts of the world. The DOH continues to closely monitor the situation, and at this time there is no indication of increased risk to our state. Based on all available information, state and federal experts do not anticipate a risk of radiation exposure to Hawaii. Therefore, the Hawaii State Department of Health (DOH) advises the public against ingesting potassium iodide or KI as a precaution against possible radiation exposure. Ingesting KI is not an effective precautionary measure. For more information on emergency preparedness, go to http://hawaii.gov/health/BT/Radiation.html
29	**03/15/11** Arizona Release PHOENIX–The devastating earthquake and tsunami that last week triggered a radiological situation at one of Japan's nuclear power plants does not pose a public health threat in Arizona. The yet unfolding radiological situation has raised some concern about possible exposure to radiation and prompted questions about the need for potassium iodide or KI in Arizona. Potassium iodide protects the thyroid from absorbing radioactive iodine after exposure to high levels of radiation. The Arizona Radiation Regulatory Agency (ARRA) is continually monitoring radiation levels in state and, at present (March 15, 2011 at 3:00 pm), there are no reports of elevated or above normal readings. Due to the distance between Japan and Arizona, radiation levels are highly unlikely to rise above normal levels already present in the atmosphere. Consequently, it is not necessary to purchase or take KI. www.azein.gov
28	**03/15/11** Guam Safe from Nuclear Fallout http://www.guamhs.org/main/?pg=news&id=412
27	**03/15/11** NRC Analysis Continues to Support Japan's Protective Actions

	http://pbadupws.nrc.gov/docs/ML1107/ML110740628.pdf
26	**03/15/11** (Revised) NRC Sends Additional Experts to Assist Japan http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-048R.pdf
25	**03/15/11** Earthquake Information for Americans in Japan http://japan.usembassy.gov/e/acs/tacs-warden20110315-01.html
24	**03/14/11** Fushima radiation leak http://www.guamhs.org/main/?pg=news&id=411
23	**03/14/11** The Blog: Press Briefing by Press Secretary Jay Carney, Nuclear Regulatory Commission Chairman Greg Jaczko and Deputy Secretary of Energy Dan Poneman. http://www.whitehouse.gov/the-press-office/2011/03/14/press-briefing-press-secretary-jay-carney-nuclear-regulatory-commission-
22	**03/14/11** NRC Sends Special Inspection Team to Global Nuclear Fuel Plant http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-007.ii.pdf
21	**03/14/11** Japanese Government Asks for Assistance with Reactor Events; U.S. Government and NRC Preparing Response http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-047.pdf
20	**03/14/11** Information for Americans in Japan http://japan.usembassy.gov/e/acs/tacs-warden20110314-02.html
19	**03/13/11** (Revised)NRC Sees No Radiation at Harmful Levels Reaching U.S. From Damaged Japanese Nuclear Power Plants http://pbadupws.nrc.gov/docs/ML1107/ML110710004.pdf
18	**03/13/11** NRC Sees No Radiation at Harmful Levels Reaching U.S. From Damaged Japanese Nuclear Power Plants The Nuclear Regulatory Commission is coordinating with the Department of Energy and other federal

	agencies in providing whatever assistance the Japanese government requests as they respond to conditions at several nuclear power plant sites following the March 11 earthquake and tsunami. The NRC has sent two boiling-water reactor experts to Japan as part of a U.S. Agency for International Development team. In response to nuclear emergencies, the NRC works with other U.S. agencies to monitor radioactive releases and predict their path. All the available information indicates weather conditions have taken the small releases from the Fukushima reactors out to sea away from the population. Given the thousands of miles between the two countries, Hawaii, Alaska, the U.S. Territories and the U.S. West Coast are not expected to experience any harmful levels of radioactivity. www.nrc.gov
17	**03/13/11** Caution Traveling in Japan http://japan.usembassy.gov/e/acs/tacs-warden20110313-02.html
16	**03/13/11** From Ambassador Roos to American Citizens in Japan http://japan.usembassy.gov/e/acs/tacs-warden20110313-01.html
15	**03/12/11** MANDATORY CLOSURE OF BEACHES LIFTED http://www.guamhs.org/main/?pg=news&id=410
14	**03/12/11** US Search and Rescue Teams Depart for Japan http://www.usaid.gov/press/releases/2011/pr110312.html
13	**03/12/11** NRC Experts Deploy to Japan as Part of U.S. Government Response http://pbadupws.nrc.gov/docs/ML1107/ML110710004.pdf
12	**03/12/11** NRC in Communication with Japanese Regulators http://pbadupws.nrc.gov/docs/ML1107/ML110710003.pdf
11	**03/12/11** 20 Km Evacuation from Fukushima Nuclear Power Plant http://japan.usembassy.gov/e/acs/tacs-warden20110312-04.html
10	**03/12/11** How to Contact the U.S. Embassy, your family and friends http://japan.usembassy.gov/e/acs/tacs-warden20110312-03.html

9	**03/12/11** Warden Message - Fukushima Nuclear Power Plant Evacuation http://japan.usembassy.gov/e/acs/tacs-warden20110312-02.html
8	**03/12/11** Warden Message - Tsunami Alerts Still in Effect http://japan.usembassy.gov/e/acs/tacs-warden20110312-01.html
7	**03/11/11** Guam - All Clear http://www.guamhs.org/main/?pg=news&id=409
6	**03/11/11** Travel Alert – Japan http://japan.usembassy.gov/e/acs/tacs-alert20110311a.html
5	**03/11/11** Warden Message - Earthquake and Tsunami Warning http://japan.usembassy.gov/wm-031111.html
4	**03/11/11** USAID Responds Immediately to Japan Earthquake and Tsunami http://www.usaid.gov/press/releases/2011/pr110311.html
3	**03/11/11** NRC Continues to Track Earthquake and Tsunami Issues http://pbadupws.nrc.gov/docs/ML1107/ML110700697.pdf
2	**03/11/11** REMARKS BY SECRETARY OF STATE HILLARY RODHAM CLINTON OPENING REMARKS AT THE PRESIDENT'S EXPORT COUNCIL OLD EXECUTIVE OFFICE BUILDING **WWW.STATE.GOV**
1	**03/11/11**

ON THE RECORD BRIEFING

Assistant Secretary of State for Consular Affairs Janice L. Jacobs

On the Earthquake in Japan

March 11, 2011

Via Teleconference

www.state.gov

From: Harrington, Holly
To: Bonaccorso, Amy
Cc: Deavers, Ron
Subject: RE: Challenge to Mr. Jaczko"s Statement and Conclusion
Date: Thursday, March 17, 2011 12:14:00 PM

No, don't worry about it.

From: Bonaccorso, Amy
Sent: Thursday, March 17, 2011 12:00 PM
To: Harrington, Holly
Cc: Deavers, Ron
Subject: RE: Challenge to Mr. Jaczko's Statement and Conclusion

Holly –

Ron and I chatted on this. Do you have a general statement/guidance on this type of email? It's an email criticism of the Chairman's public comments.

Thanks,

Amy

From: Deavers, Ron
Sent: Thursday, March 17, 2011 11:54 AM
To: Bonaccorso, Amy
Subject: RE: Challenge to Mr. Jaczko's Statement and Conclusion

I think We need direction from Holly. I can't debate with this guy on a technical level.

From: OPA1 RESOURCE
Sent: Thursday, March 17, 2011 11:51 AM
To: Bonaccorso, Amy; Deavers, Ron
Subject: FW: Challenge to Mr. Jaczko's Statement and Conclusion

For you...

DIANE SCRENCI
SR. PUBLIC AFFAIRS OFFICER
USNRC, RI
610/337-5330

From: Pete Wolfinger [mailto:petewolfinger@nuclearsupport.com]
Sent: Thursday, March 17, 2011 11:35 AM
To: OPA1 RESOURCE
Subject: Challenge to Mr. Jaczko's Statement and Conclusion

Please convey this to Mr. Jaczko. Whether he takes it as an affront, an opportunity, or dismisses it out-of-hand is beyond my control, but I need to take the responsibility to say this.

XXXX-B/B1

According to various sources, including NEI, Mr. Jaczko told Congress that the commission believed all the water was gone from the Unit 4 pool. Given the plethora of other information related to the pool parameters, together with the laws of physics, unless the pool was breached I do not see how he can believe that. I have seen no mention of pool breach. Rather, I see this a completely inappropriate behavior on his part.

I am not saying that the situation is not bad. However, we in the nuclear industry must convey to the media only that which is known. I view what the commission "believes" in this case as unsubstantiated, and I am respectfully disputing it. This is the questioning attitude developed over 40 years in the commercial nuclear power industry.

If I am wrong, that's fine too, but lets think through things before we start telling stories of doom to Congress. There are plenty of other people to do that.

I work with the Japanese, and find them thinking and rational people. That, together with having substantial experience with station blackout accident progression, having written the accident progression scenario for the BWR Hydrogen Contol Owners Group, having written emergency exercises with SBO as the initiator, and having operated this type of BWR as an SRO/Shift Supervisor under many faulted conditions, I am saying that those associated with the nuclear industry need to get a diverse spectrum people involved who know what they are talking about.

I can see now that 10CFR50.63 will be revisited, utility responses will be reevaluated, and there will be EOP work to be done. Right now, though, I am respectfully challenging the "experts" to find and utilize someone with real experience and a questioning attitude so we don't spread unnecessary panic. The academics can provide techincal support as required. In the meantime, I am challenging Mr. Jaczko's statement to a sanity check.

Pete Wolfinger
(706) 294-4899

From: Bubar, Patrice
To: Harrington, Holly
Subject: RE: Request for an interview
Date: Thursday, March 17, 2011 12:51:15 PM

Im sorry for not forwarding. 323-630-2649 in the number for Angela Hoffman.

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

From: Harrington, Holly
Sent: Thursday, March 17, 2011 10:43 AM
To: Bubar, Patrice
Subject: RE: Request for an interview

Do you have the number or just forward me the request itself?

From: Bubar, Patrice
Sent: Thursday, March 17, 2011 10:26 AM
To: Harrington, Holly
Subject: RE: Request for an interview

Absolutely. We feel no obligation to anyone at this point. Thanks for asking.

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

From: Harrington, Holly
Sent: Thursday, March 17, 2011 9:21 AM
To: Bubar, Patrice
Subject: RE: Request for an interview

Patty – This program is working its way through the Commission. With your permission, we are respectfully declining such invitations. Is that OK with you?

Holly

From: Bubar, Patrice
Sent: Thursday, March 17, 2011 9:20 AM
To: Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly
Cc: Crawford, Carrie
Subject: Request for an interview

XXXX BBB

Good morning folks. I can't even imagine what all of you are going through with all the multiple requests for interviews and question and answer sessions.

It is with hesitation that I add one to your list.

We received a call from Angela Hoffman – Program Producer for the Hutchinson Report – one of Southern California's news, public affairs and talk shows.

They requested Commissioner Magwood be interviewed as a Guest on the Hutchinson Report (KTYM 1460 AM or KPFK 90.7).

We talked to Angela and they clearly want to talk about the events in Japan.

We let them know we are forwarding their request on to NRC Public Affairs.

Let us know if you have any questions.

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

From: PMT03 Hoc
To: PMT07 Hoc
Subject: Friday AI log.doc
Date: Friday, March 18, 2011 2:35:04 PM
Attachments: Friday AI log.doc

XXXX-333

PMTR Action Item Registry

Friday, March 18, 2011

Action Item	Assignee	Due
1. Develop source term for Worst case-4 unit scenario 2. Coordinate with Chairman Jaczko before release to DOE	Bruce John	
3. Review NARAC's assessment for "Super Core" scenario, when received	Bruce	TBD
4. Update PMT Chronology log for shift events	Duane	3/18, 14:30
5. Share modeling results and dose rate date with UK	John	
~~6. Update SITREP for shift events~~	~~Kathryn~~	~~3/18, 14:30~~
7. Provide explanation of assumptions for source term for "Super Core" scenario (see Tasker record#1525)	Bruce	
8. Provide explanation of assumptions for source term for Worst-case-4 unit" scenario (see Tasker record#1527)	Bruce	
~~9. Coordinate with DOE to assess their published PAR. DOE differs from NRC recommendations and need unified message~~	~~Kathryn~~	
10. Evaluate usefulness of actual date from Japanese Ministry for measured dose rates: a. If useful, report how it will be used b. Determine/recommend if data will be released	 Bruce John	
~~11. Contact CMT for updated AMS data (no current data has been received today)~~	~~Kathryn~~	
12. Report status of coordination with DOE for dose assessment (re: Tom Agastino call to SECY)	John	
13. Continue to work with R-IV for Diablo Canyon Iodine-131 readings	Bruce	
14.		
15.		

From: LIA05 Hoc
Sent: Friday, March 18, 2011 7:02 AM
To: Andrew Seward; Harry Sherwood; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn; Horwitz, Steve
Subject: FW: KI info for FEMA rev 2.xls- updated
Attachments: KI info for FEMA rev 2.xls

FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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DO NOT RELEASE OUTSIDE OF THE FEDERAL FAMILY

From: Milligan, Patricia
Sent: Thursday, March 17, 2011 9:20 PM
To: james.purvis@dhs.gov; LIA05 Hoc
Cc: Greten, Timothy; Howe, Michael
Subject: KI info for FEMA rev 2.xls- updated

XXXX-BBH

9/17/2011

STATE	130 mg tablets	65 mg tablets	TOTAL PILLS
	4,766,454	14,577,129	17,825,551.00
Alabama		270,000	270,000
Arizona		14,398	14,398
Arkansas			0
California		1358032	
Connecticut	370,000		370,000
Delaware	100,000	60,000	
Delaware	74,074	25,000	99,074
Florida		2,115,999	2,115,999
Georgia			0
Illinois			0
Iowa			0
Kansas			0
Louisiana			0
Maryland	192,000	36,956	228,956
Massachusetts	550,220		550,220
Michigan		1,360,000	1,360,000
Minnesota		1,234,680	1,234,680
Mississippi	20,006	5,000	25,006
Missouri			0
Nebraska			0
New Hampshire	330,000	106,000	436,000
New Jersey	682,000	189,000	871,000
New York	1,000,000	140,000	1,140,000
North Carolina	566,000	100,000	666,000
Ohio		1,420,820	1,420,820
Pennsylvania		4,300,000	4,300,000
Prarie Island Tribe			0
South Carolina		1,320,000	1,320,000
Tennessee		446,480	446,480
Texas			0

9/17/2011

Vermont	70,000	22,764	92,764
Virginia	782,152		782,152
Washington			0
West Virginia	30,002	20,000	50,002
Wisconsin		32,000	32,000
			0

From: OST02 HOC
To: PMT03 Hoc; PMT07 Hoc; Hoc, PMT12
Subject: Japanese dose measurements
Date: Friday, March 18, 2011 2:30:02 PM
Attachments: Document.pdf

XXXX-bbb

JST

From J. Schwartzman

→ Japan Ministry MEXT Actual Measured DOSE RATES

hours

環境放射能水準調査結果

H23.3.17 19:00

(μSv/h)

	Prefecture(City)	16/03/2011							17/03/2011						
		17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6	6-7
1	Hokkaido(Sappro)	0.027	0.028	0.027	0.028	0.027	0.028	0.028	0.028	0.028	0.028	0.029	0.031	0.031	0.030
2	Aomori(Aomori)	0.042	0.050	0.050	0.032	0.026	0.024	0.028	0.026	0.022	0.020	0.026	0.023	0.021	0.020
3	Iwate(Morioka)	0.039	0.036	0.034	0.034	0.034	0.033	0.034	0.036	0.041	0.045	0.048	0.043	0.036	0.033
4	Miyagi(Sendai)	0.155	0.153	0.153	0.153	0.151	0.149	0.148	0.147	0.146	0.145	0.144	0.143	0.141	0.140
5	Akita(Akita)	0.035	0.036	0.037	0.042	0.040	0.038	0.039	0.042	0.044	0.048	0.047	0.040	0.036	0.034
6	Yamagata(Yamagata)	0.056	0.052	0.053	0.052	0.055	0.053	0.051	0.050	0.050	0.050	0.054	0.056	0.051	0.055
7	Fukushima(Futaba)														
8	Ibaraki(Mito)	0.248	0.244	0.241	0.239	0.237	0.235	0.233	0.232	0.231	0.230	0.228	0.226	0.225	0.225
9	Tochigi(Utsunomiya)	0.214	0.213	0.212	0.212	0.211	0.210	0.208	0.208	0.207	0.205	0.203	0.203	0.201	0.200
10	Gunma(Maebashi)	0.110	0.109	0.109	0.109	0.108	0.108	0.107	0.106	0.106	0.105	0.104	0.104	0.103	0.102
11	Saitama(Saitama)	0.068	0.068	0.067	0.067	0.067	0.067	0.067	0.067	0.066	0.066	0.066	0.066	0.065	0.065
12	Chiba(Ishihara)	0.041	0.041	0.040	0.040	0.041	0.040	0.040	0.040	0.039	0.039	0.039	0.039	0.038	0.038
13	Tokyo(Chiyyuku)	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.052	0.052	0.052	0.052	0.052
14	kanagawa(Chigasaki)	0.056	0.056	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.054	0.054	0.054	0.054
15	Niigata(Niigata)	0.047	0.048	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.048	0.047
16	Toyama(Imizu)	0.051	0.055	0.052	0.050	0.049	0.050	0.055	0.056	0.051	0.050	0.049	0.051	0.055	0.051
17	Ichikawa(kanazawa)	0.051	0.050	0.048	0.047	0.048	0.051	0.053	0.052	0.049	0.048	0.047	0.047	0.047	0.048
18	Fukui(Fukui)	0.046	0.049	0.049	0.047	0.046	0.048	0.049	0.051	0.048	0.048	0.046	0.049	0.052	0.048
19	Yamanashi(Kohu)	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.044	0.044	0.044
20	Nagano(Nagano)	0.087	0.087	0.089	0.088	0.088	0.089	0.087	0.086	0.086	0.085	0.085	0.085	0.085	0.085
21	Gifu(Kakumuhara)	0.061	0.061	0.061	0.061	0.061	0.061	0.060	0.061	0.061	0.061	0.061	0.061	0.061	0.061
22	Shizuoka(Shizuoka)	0.042	0.040	0.040	0.040	0.040	0.040	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039
23	Aichi(Nagoya)	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.039	0.039	0.039	0.039
24	Mie(Yokkaichi)	0.053	0.055	0.057	0.056	0.060	0.057	0.055	0.052	0.052	0.056	0.052	0.049	0.048	0.047
25	Shiga(Otsu)	0.035	0.034	0.034	0.034	0.036	0.034	0.033	0.033	0.033	0.032	0.033	0.033	0.033	0.033
26	Kyoto(Kyoto)	0.041	0.039	0.038	0.038	0.038	0.038	0.038	0.040	0.039	0.038	0.038	0.038	0.038	0.038
27	Osaka(Osaka)	0.044	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.042	0.042	0.043	0.043
28	Hyogo(Kobe)	0.038	0.037	0.037	0.038	0.038	0.038	0.039	0.038	0.038	0.037	0.036	0.037	0.037	0.037
29	nara(Nara)	0.047	0.047	0.047	0.047	0.048	0.047	0.047	0.048	0.047	0.047	0.047	0.047	0.047	0.047
30	Wakayama(Wakayama)	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031	0.031	0.032	0.032	0.032	0.032
31	Tottori(Tohhaku)	0.075	0.074	0.072	0.067	0.064	0.063	0.063	0.063	0.063	0.064	0.069	0.071	0.071	0.069
32	Shimane(Matsue)	0.038	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.038	0.038	0.037	0.038
33	Okayama(Okayama)	0.049	0.049	0.048	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.050	0.050	0.050	0.051
34	Hiroshima(Hiroshima)	0.046	0.046	0.046	0.047	0.047	0.048	0.048	0.049	0.049	0.049	0.049	0.050	0.049	0.049
35	Yamaguchi(Yamaguchi)	0.092	0.092	0.092	0.093	0.093	0.094	0.095	0.096	0.096	0.095	0.096	0.098	0.099	0.098
36	Tokushima(Tokushima)	0.040	0.040	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.037	0.038	0.038
37	Kagawa(Takamastu)	0.053	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052
38	Ehime(Matsuyama)	0.047	0.048	0.048	0.047	0.047	0.048	0.049	0.050	0.049	0.050	0.050	0.050	0.051	0.050
39	Kochi(Kochi)	0.024	0.024	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.026	0.026	0.026	0.027	0.027
40	Fukuoka(Dazaifu)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.037	0.037	0.037	0.036
41	Shiga(Shiga)	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.041	0.041	0.041	0.041	0.041	0.041	0.040
42	Nagasaki(Ohmura)	0.029	0.029	0.029	0.029	0.030	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
43	Kumamoto(Uto)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.028	0.027	0.027	0.027	0.027
44	Oita(Oita)	0.050	0.050	0.049	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
45	Miyazaki(Miyazaki)	0.026	0.026	0.026	0.026	0.026	0.027	0.027	0.027	0.026	0.027	0.027	0.027	0.027	0.026
46	Kagoshima(Kagoshima)	0.034	0.035	0.034	0.034	0.034	0.034	0.035	0.036	0.036	0.035	0.035	0.035	0.035	0.034
47	Okinawa(Uruma)	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021

*Blanks are caused by device clearance, but the area was measured by Monitoring Posts.

*These dates are estimated as 1 μGy/h=1 μSv/h.

*The table was made by MEXT, based on the reports from prefectures.

→ highest

→ tokyo

WHAT DOES THIS TELL US.

環境放射能水準調査結果

H23.3.17 19:00 (μSv/h)

	Prefecture(City)	17/03/2011										
		7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	Range of past usual figues
1	Hokkaido(Sappro)	0.030	0.029	0.028	0.029	0.031	0.035	0.033	0.031	0.031	0.029	0.02～0.105
2	Aomori(Aomori)	0.020	0.020	0.020	0.020	0.022	0.027	0.033	0.033	0.029	0.026	0.017～0.102
3	Iwate(Morioka)	0.032	0.031	0.031	0.031	0.030	0.030	0.030	0.029	0.030	0.030	0.014～0.084
4	Miyagi(Sendai)	0.131		0.138	0.137	0.139	0.143	0.141	0.141	0.141	0.141	0.0176～0.0513
5	Akita(Akita)	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.036	0.041	0.044	0.022～0.086
6	Yamagata(Yamagata)	0.054	0.051	0.052	0.053	0.050	0.052	0.052	0.047	0.046	0.047	0.025～0.082
7	Fukushima(Futaba)											0.037～0.071
8	Ibaraki(Mito)	0.224	0.222	0.218	0.217	0.215	0.214	0.212	0.212	0.210	0.209	0.036～0.056
9	Toshigi(Utsunomiya)	0.199	0.197	0.195	0.194	0.193	0.192	0.191	0.190	0.189	0.189	0.030～0.067
10	Gunma(Maebashi)	0.101	0.101	0.100	0.099	0.099	0.099	0.098	0.097	0.096		0.017～0.045
11	Saitama(Saitama)	0.065	0.064	0.064	0.064	0.064	0.063	0.063	0.063	0.063	0.062	0.031～0.060
12	Chiba(Ishihara)	0.038	0.038	0.038	0.038	0.038	0.037	0.038	0.038	0.038	0.037	0.022～0.044
13	Tokyo(Chinjyuku)	0.052	0.052	0.052	0.051	0.051	0.051	0.051	0.051	0.050	0.050	0.028～0.079
14	kanagawa(Chigasaki)	0.054	0.054	0.053	0.053	0.053	0.053			0.052	0.053	0.035～0.069
15	Niigata(Niigata)	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.031～0.153
16	Toyama(Imizu)	0.048	0.049	0.050	0.049	0.048	0.049	0.049	0.050	0.050	0.052	0.029～0.147
17	Ichikawa(kanazawa)	0.049	0.047	0.047	0.050	0.048	0.048	0.049	0.048	0.050	0.050	0.0291～0.1275
18	Fukui(Fukui)	0.046	0.050	0.051	0.049	0.049	0.046	0.046	0.046	0.045	0.050	0.032～0.097
19	Yamanashi(Kohu)	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.040～0.064
20	Nagano(Nagano)	0.083	0.082	0.081	0.080	0.079	0.078	0.078	0.078	0.077	0.077	0.0299～0.0974
21	Gifu(Kakumuhara)	0.061	0.061	0.060	0.061	0.060	0.060	0.060	0.061	0.060	0.060	0.057～0.110
22	Shizuoka(Shizuoka)	0.038	0.039	0.043	0.044	0.044	0.044	0.044	0.044	0.044	0.043	0.0281～0.0765
23	Aichi(Nagoya)	0.039	0.039	0.039	0.040	0.040	0.039	0.039	0.039	0.039	0.039	0.035～0.074
24	Mie(Yokkaichi)	0.046	0.045	0.045	0.045	0.045	0.046	0.046	0.047	0.049	0.049	0.0416～0.0789
25	Shiga(Otsu)	0.033	0.033	0.033	0.033	0.033	0.033	0.038	0.036	0.034	0.033	0.031～0.061
26	Kyoto(Kyoto)	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.041	0.041	0.039	0.033～0.087
27	Osaka(Osaka)	0.043	0.042	0.042	0.043	0.043	0.043	0.043	0.046	0.044	0.043	0.042～0.061
28	Hyogo(Kobe)	0.037	0.036	0.036	0.036	0.037	0.038	0.039	0.039	0.040	0.039	0.035～0.076
29	nara(Nara)	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.048	0.048	0.046～0.08
30	Wakayama(Wakayama)	0.032	0.031	0.031	0.031	0.031	0.031	0.032	0.032	0.035	0.034	0.031～0.056
31	Tottori(Tohhaku)	0.076	0.078	0.079	0.083	0.078	0.066	0.061	0.062	0.063	0.061	0.036～0.11
32	Shimane(Matsue)	0.042	0.043	0.039	0.041	0.042	0.043	0.039	0.037	0.036	0.036	0.033～0.079
33	Okayama(Okayama)	0.051	0.051	0.049	0.048	0.048	0.048	0.049	0.053	0.051	0.049	0.043～0.104
34	Hiroshima(Hiroshima)	0.049	0.049	0.048	0.048	0.048	0.047	0.049	0.049	0.048	0.047	0.035～0.069
35	Yamaguchi(Yamaguchi)	0.096	0.094	0.092	0.092	0.092	0.092	0.092	0.092	0.094	0.099	0.084～0.128
36	Tokushima(Tokushima)	0.038	0.038	0.037	0.037	0.037	0.037	0.037	0.037	0.039	0.045	0.037～0.067
37	Kagawa(Takamastu)	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.053	0.055	0.054	0.051～0.077
38	Ehime(Matsuyama)	0.050	0.049	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.045～0.074
39	Kochi(Kochi)	0.028	0.027	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.023～0.076
40	Fukuoka(Dazaifu)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.034～0.079
41	Shiga(Shiga)	0.040	0.040	0.040	0.039	0.039	0.039	0.039	0.039	0.040	0.039	0.037～0.086
42	Nagasaki(Ohmura)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.028	0.027～0.069
43	Kumamoto(Uto)	0.027	0.027	0.027	0.027	0.026	0.026	0.026	0.027	0.027	0.027	0.021～0.067
44	Oita(Oita)	0.050	0.050	0.049	0.050	0.050	0.049	0.049	0.049	0.049	0.049	0.048～0.085
45	Miyazaki(Miyazaki)	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.0243～0.0664
46	Kagoshima(Kagoshima)	0.034	0.034	0.034	0.034	0.034	0.034	0.033	0.034	0.033	0.034	0.0306～0.0943
47	Okinawa(Uruma)	0.021	0.021	0.021	0.021	0.021	0.021	0.022	0.021	0.021	0.021	0.0133～0.0575

*Blanks are caused by device clearance, but the area was measured by Monitoring Posts.

*These dates are estimated as 1μGy/h=1μSv/h.

*The table was made by MEXT, based on the reports from prefectures.

環境放射能水準調査結果

H23.3.18 19:00

（μSv/h（マイクロシーベルト毎時））

	都道府県名	3月17日							3月18日						
		17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6	6-7
1	北海道（札幌市）	0.027	0.028	0.029	0.028	0.027	0.028	0.031	0.030	0.028	0.028	0.029	0.028	0.028	0.027
2	青森県（青森市）	0.024	0.022	0.021	0.021	0.020	0.020	0.019	0.019	0.020	0.020	0.019	0.019	0.019	0.019
3	岩手県（盛岡市）	0.031	0.033	0.031	0.031	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.031
4	宮城県（仙台市）														
5	秋田県（秋田市）	0.039	0.035	0.034	0.034	0.036	0.035	0.034	0.033	0.033	0.033	0.033	0.034	0.033	0.033
6	山形県（山形市）	0.049	0.052	0.047	0.049	0.050	0.047	0.043	0.041	0.041	0.040	0.040	0.040	0.040	0.040
7	福島県（双葉郡）														
8	茨城県（水戸市）	0.209	0.207	0.207	0.206	0.205	0.205	0.204	0.203	0.202	0.201	0.201	0.199	0.199	0.198
9	栃木県（宇都宮市）	0.188	0.186	0.187	0.185	0.185	0.183	0.182	0.182	0.181	0.180	0.179	0.178	0.177	0.175
10	群馬県（前橋市）	0.096	0.095	0.095	0.095	0.094	0.093	0.093	0.092	0.092	0.091	0.091	0.090	0.090	0.089
11	埼玉県（さいたま市）	0.063				0.063	0.063	0.062	0.061	0.061	0.061	0.061	0.061	0.060	0.060
12	千葉県（市原市）	0.037	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
13	東京都（新宿区）	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.049	0.050	0.049	0.049	0.049
14	神奈川県（茅ヶ崎市）	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.051	0.051	0.052	0.051
15	新潟県（新潟市）	0.047	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.050	0.049	0.047	0.047	0.046	0.046
16	富山県（射水市）	0.053	0.049	0.048	0.051	0.051	0.051	0.049	0.048	0.047	0.046	0.046	0.046	0.046	0.046
17	石川県（金沢市）	0.049	0.048	0.047	0.049	0.048	0.047	0.047	0.047	0.047	0.047	0.046	0.046	0.046	0.046
18	福井県（福井市）	0.050	0.047	0.046	0.047	0.050	0.047	0.044	0.044	0.044	0.044	0.044	0.044	0.043	0.043
19	山梨県（甲府市）	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044
20	長野県（長野市）	0.077	0.077	0.078	0.078	0.078	0.079	0.079	0.079	0.079	0.080	0.078	0.077	0.076	0.075
21	岐阜県（各務原市）	0.060	0.060	0.060	0.060	0.060	0.061	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
22	静岡県（静岡市）	0.040	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038
23	愛知県（名古屋市）	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039
24	三重県（四日市市）	0.051	0.050	0.049	0.048	0.048	0.048	0.049	0.048	0.049	0.047	0.046	0.045	0.045	0.045
25	滋賀県（大津市）	0.033	0.033	0.034	0.033	0.032	0.032	0.036	0.036	0.034	0.033	0.032	0.032	0.032	0.032
26	京都府（京都市）	0.038	0.038	0.038	0.039	0.038	0.038	0.038	0.041	0.039	0.038	0.038	0.038	0.038	0.037
27	大阪府（大阪市）	0.043	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.043	0.042	0.042	0.042	0.042
28	兵庫県（神戸市）	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037
29	奈良県（奈良市）	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047
30	和歌山県（和歌山市）	0.033	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031
31	鳥取県（東伯郡）	0.059	0.058	0.058	0.057	0.063	0.060	0.058	0.057	0.056	0.056	0.057	0.057	0.057	0.058
32	島根県（松江市）	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.038	0.039
33	岡山県（岡山市）	0.049	0.048	0.048	0.049	0.049	0.049	0.049	0.049	0.050	0.050	0.050	0.050	0.050	0.051
34	広島県（広島市）	0.046	0.047	0.047	0.046	0.047	0.047	0.048	0.049	0.050	0.050	0.050	0.051	0.051	0.051
35	山口県（山口市）	0.102	0.096	0.093	0.093	0.093	0.094	0.094	0.095	0.095	0.096	0.096	0.096	0.096	0.097
36	徳島県（徳島市）	0.042	0.040	0.039	0.038	0.038	0.038	0.037	0.038	0.038	0.038	0.038	0.038	0.038	0.038
37	香川県（高松市）	0.053	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.053
38	愛媛県（松山市）	0.049	0.050	0.048	0.048	0.048	0.048	0.049	0.049	0.049	0.050	0.050	0.051	0.050	0.050
39	高知県（高知市）	0.026	0.026	0.025	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.026	0.026	0.026	0.027
40	福岡県（太宰府市）	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.037	0.038	0.037	0.037	0.037	0.038
41	佐賀県（佐賀市）	0.039	0.040	0.040	0.040	0.040	0.040	0.041	0.041	0.041	0.041	0.041	0.041	0.041	0.041
42	長崎県（大村市）	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.030
43	熊本県（宇土市）	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.028	0.028	0.028
44	大分県（大分市）	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.050	0.050	0.050	0.051	0.051
45	宮崎県（宮崎市）	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.027	0.027	0.027	0.027	0.027	0.027	0.027
46	鹿児島県（鹿児島市）	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.035	0.035	0.035	0.035
47	沖縄県（うるま市）	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、宮城県原子力安全対策室HPで公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について（3月18日19:00現在）」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h（マイクログレイ毎時）=1μSv/h（マイクロシーベルト毎時）と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成

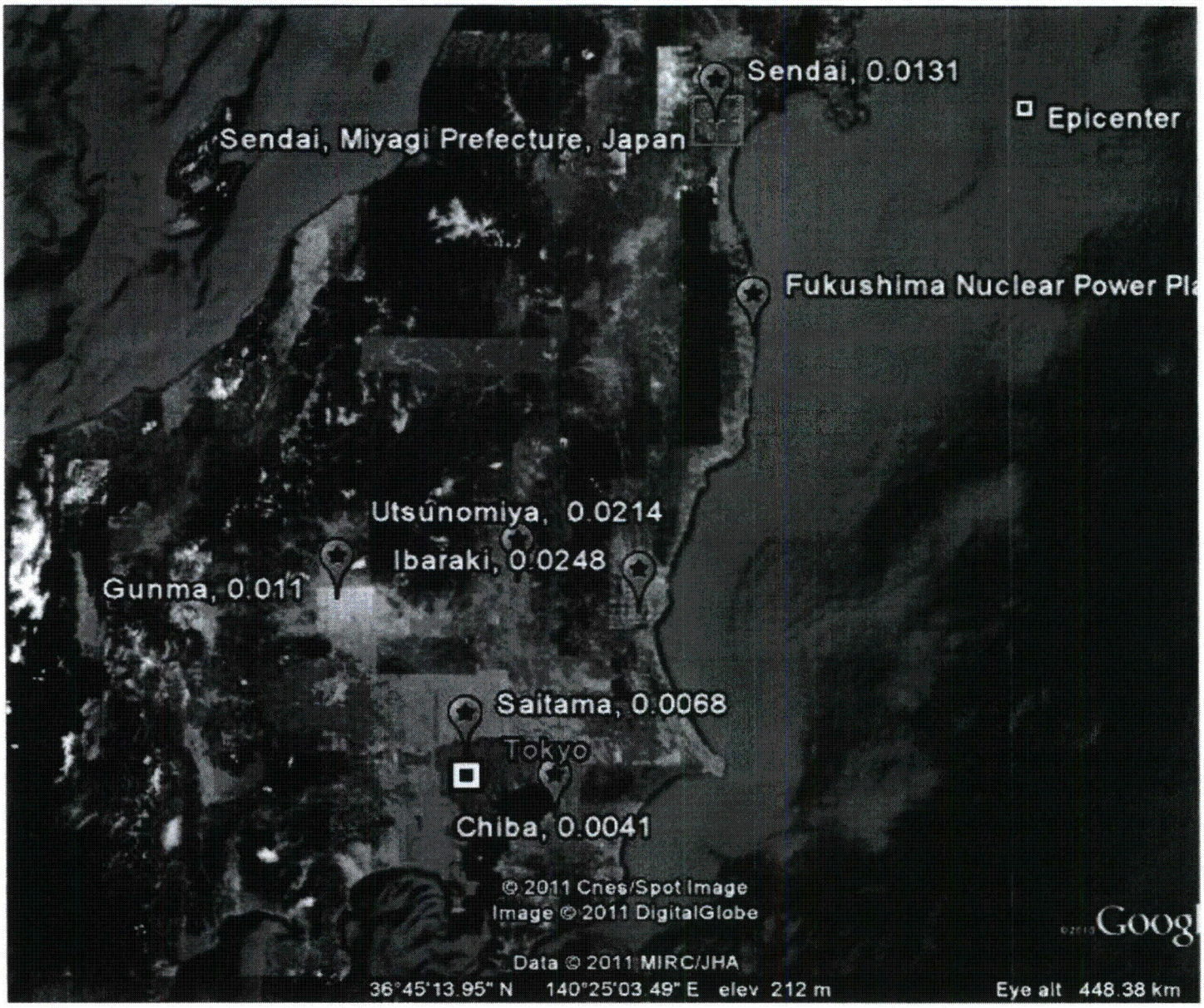
環境放射能水準調査結果

H23.3.18 19:00

（μSv/h(マイクロシーベルト毎時)）

	都道府県名	3月18日										
		7~8	8~9	9~10	10~11	11~12	12~13	13~14	14~15	15~16	16~17	過去の平常値の範囲
1	北海道(札幌市)	0.027	0.027	0.027	0.027	0.028	0.027	0.027	0.027	0.027	0.027	0.02～0.105
2	青森県(青森市)	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.019	0.019	0.019	0.017～0.102
3	岩手県(盛岡市)	0.031	0.030	0.029	0.029	0.028	0.028	0.028	0.028	0.028	0.028	0.014～0.084
4	宮城県(仙台市)											0.0176～0.0513
5	秋田県(秋田市)	0.034	0.034	0.034	0.034	0.033	0.033	0.034	0.033	0.034	0.033	0.022～0.086
6	山形県(山形市)	0.040	0.040	0.040	0.040	0.040	0.040	0.039	0.040	0.040	0.040	0.025～0.082
7	福島県(双葉郡)											0.037～0.071
8	茨城県(水戸市)	0.197	0.195	0.195	0.193	0.192	0.191	0.190	0.189	0.188	0.187	0.036～0.056
9	栃木県(宇都宮市)	0.175	0.175	0.172	0.171	0.170	0.169	0.168	0.167	0.166	0.165	0.030～0.067
10	群馬県(前橋市)	0.089	0.088	0.087	0.087	0.086	0.086	0.086	0.086	0.085	0.085	0.017～0.045
11	埼玉県(さいたま市)	0.060	0.059	0.059	0.059	0.058	0.058	0.058	0.058			0.031～0.060
12	千葉県(市原市)	0.036	0.035	0.035	0.035	0.034	0.034	0.034	0.034	0.034	0.034	0.022～0.044
13	東京都(新宿区)	0.049	0.049	0.049	0.048	0.049	0.049	0.049	0.048	0.048	0.048	0.028～0.079
14	神奈川県(茅ヶ崎市)	0.051	0.051	0.051	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.035～0.069
15	新潟県(新潟市)	0.046	0.045	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.031～0.153
16	富山県(射水市)	0.046	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.029～0.147
17	石川県(金沢市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0291～0.1275
18	福井県(福井市)	0.043	0.044	0.043	0.043	0.043	0.044	0.044	0.044	0.044	0.045	0.032～0.097
19	山梨県(甲府市)	0.044	0.043	0.043	0.043	0.044	0.043	0.043	0.043	0.043	0.044	0.040～0.064
20	長野県(長野市)	0.074	0.073	0.072	0.072	0.071	0.071	0.071	0.071	0.071	0.071	0.0299～0.0974
21	岐阜県(各務原市)	0.061	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.057～0.110
22	静岡県(静岡市)	0.038	0.037	0.038	0.038	0.038	0.038	0.038	0.037	0.037	0.037	0.0281～0.0765
23	愛知県(名古屋市)	0.039	0.039	0.039	0.039	0.038	0.038	0.039	0.039	0.039	0.039	0.035～0.074
24	三重県(四日市市)	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.0416～0.0789
25	滋賀県(大津市)	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.033	0.031～0.061
26	京都府(京都市)	0.038	0.038	0.038	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.033～0.087
27	大阪府(大阪市)	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042～0.061
28	兵庫県(神戸市)	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.035～0.076
29	奈良県(奈良市)	0.047	0.046	0.047	0.046	0.047	0.047	0.047	0.047	0.047	0.047	0.046～0.08
30	和歌山県(和歌山市)	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031～0.056
31	鳥取県(東伯郡)	0.058	0.058	0.058	0.058	0.058	0.058	0.060	0.061	0.062	0.062	0.036～0.11
32	島根県(松江市)	0.039	0.038	0.037	0.037	0.036	0.037	0.036	0.037	0.036	0.036	0.033～0.079
33	岡山県(岡山市)	0.051	0.050	0.049	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.043～0.104
34	広島県(広島市)	0.051	0.051	0.049	0.047	0.047	0.047	0.047	0.047	0.046	0.046	0.035～0.069
35	山口県(山口市)	0.097	0.097	0.095	0.093	0.093	0.092	0.092	0.092	0.092	0.092	0.084～0.128
36	徳島県(徳島市)	0.038	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037～0.067
37	香川県(高松市)	0.053	0.052	0.052	0.052	0.052	0.051	0.052	0.052	0.051	0.052	0.051～0.077
38	愛媛県(松山市)	0.050	0.049	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.045～0.074
39	高知県(高知市)	0.027	0.027	0.025	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.023～0.076
40	福岡県(太宰府市)	0.038	0.037	0.037	0.036	0.036	0.037	0.036	0.036	0.036	0.036	0.034～0.079
41	佐賀県(佐賀市)	0.041	0.041	0.041	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.037～0.086
42	長崎県(大村市)	0.029	0.030	0.030	0.030	0.029	0.029	0.029	0.029	0.029	0.029	0.027～0.089
43	熊本県(宇土市)	0.028	0.028	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.021～0.067
44	大分県(大分市)	0.051	0.051	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.048～0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.026	0.026	0.0243～0.0664
46	鹿児島県(鹿児島市)	0.035	0.035	0.035	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.0306～0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.020	0.021	0.020	0.0133～0.0575

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、宮城県原子力安全対策室HPで公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月18日19:00現在)」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成



Max. Exposure/Dose measurements

~~MAX~~ from Japanese measurement

3/16 - 3/17.

From: LIA03 Hoc
Sent: Friday, March 18, 2011 7:39 PM
To: RST01 Hoc; RST02 Hoc
Subject: FW: Fukushima spent fuel pools

Guys,
Have you gotten this type of information from TEPCO?

-Jenny

From: Ramsey, Jack
Sent: Friday, March 18, 2011 7:36 PM
To: 'Patrick.Schwab@nuclear.energy.gov'; LIA02 Hoc; LIA03 Hoc
Subject: Re: Fukushima spent fuel pools

International liaison folks,

Could you please, when you have time, contact the RST and see if we can answer the question below? My guess is that we don't have this level of detail, bit it won't hurt to ask.

From: Schwab, Patrick <Patrick.Schwab@nuclear.energy.gov>
To: Ramsey, Jack
Cc: Schwab, Patrick <Patrick.Schwab@nuclear.energy.gov>
Sent: Fri Mar 18 18:38:35 2011
Subject: Fukushima spent fuel pools

Mr. Ramsey,
I am working on the DOE Office of Nuclear Energy's response team. Do you have information from TEPCO on how they arranged the spent fuel in the pools before the earthquake? In particular, did they store all the hotter fuel elements close to each other? Or did they spread them out, with older, cooler fuel assemblies stored in between the hotter fuel assemblies? We are especially interested in the Unit 4 pool, of course.

Thank you for your help.

Patrick Schwab

Patrick R. Schwab, Ph.D.
Office of Nuclear Energy
Department of Energy
301-903-8186
Room E-479 Germantown Bldg.
patrick.schwab@nuclear.energy.gov

XXXX-336

David Decker

From: LIA12 Hoc
Sent: Saturday, March 19, 2011 10:37 AM
To: OCA Distribution
Subject: FW: RE-UPDATED: Japan EQ Press Guidance
Attachments: 110318 0905 EDT Japan EQ Press Guidance.doc

Importance: High

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Saturday, March 19, 2011 10:30 AM
To: LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA02 Hoc; LIA08 Hoc; LIA12 Hoc; LIA12 Hoc; Harrington, Holly; Burnell, Scott; McIntyre, David; ET07 Hoc
Subject: RE-UPDATED: Japan EQ Press Guidance
Importance: High

Subject: RE-UPDATED: Japan EQ Press Guidance
Importance: High

Re-updated to reflect the request of MoFA that we not mention the "end of rescue."

The Government of Japan (GoJ) National Police Agency reported 7,348 deaths, 10,947 persons missing, and 2,603 people injured due to the earthquake and tsunami as of 0500 hours EDT on March 19. In addition, the natural disasters damaged or destroyed more than 117,000 buildings and 1,300 roads.

Conditions at the Fukushima Daiichi nuclear power plant remain relatively stable as of 0500 hours EDT March 19, according to U.S. Nuclear Regulatory Commission (NRC) personnel on the RMT. DART and RMT staff facilitated a NRC–Bechtel collaboration to design and procure 12 pumps intended to inject water into spent fuel pools, which are being transported to Japan by the Government of Australia and U.S. Forces-Japan. The NRC plans to host an information-sharing, industry to industry/government agency meeting at 1400 hours EDT today.

USG ASSISTANCE

The U.S. Agency for International Development is working with agencies across the U.S. Government—including the Departments of State, Defense, and Energy and the Nuclear Regulatory Commission—to assure that we are able to provide necessary assistance to the Government of Japan in the aftermath of the devastating earthquake and tsunami.

The USAID Disaster Assistance Response Team (DART) is in Japan and working to manage the overall U.S. Government response effort in Japan in coordination with the U.S. Embassy in Tokyo.

Nuclear specialists on the DART—including 11 NRC officers, 1 DoE officer, and 1 U.S. Department of Health and Human Services (HHS) officer—are monitoring technical aspects of the nuclear issues at the Fukushima Daiichi nuclear power plant, engaging with GoJ officials on the status of the health impacts of radiation, and providing guidance to the U.S. Embassy in Tokyo on efforts to cool reactors.

DART staff continue to engage at three levels to determine any possible humanitarian needs in Japan—nationally through Japan's Ministry of Foreign Affairs (MoFA) and other GoJ contacts, locally at the prefecture level and in coordination with U.S. Forces-Japan, and through Japanese civil society organizations, including Japan Platform (JP).

On a March 18 field assessment to Miyagi Prefecture, DART staff observed that assistance is flowing in an organized manner from the national level to the evacuation center level. However, concerns that fuel shortages may limit the transport of existing relief supplies remain. To address fuel shortages, the GoJ is working to redirect 38,000 kiloliters of fuel per day—the average daily demand before the tsunami—from oil refineries in Hokkaido and western Japan. In addition, USFJ continues to coordinate with the GoJ to ensure the availability of fuel without negatively impacting the domestic fuel economy.

The DART is working to vet requests for assistance from local prefectures and convey them to USFJ for coordination with JSDF for transportation and onward distribution. The DART notes that sufficient relief commodities are available in-country and the GoJ has not requested in-kind contributions.

On March 13, USAID's Urban Search and Rescue (USAR) teams from Fairfax County and Los Angeles County, comprising 144 personnel and 12 live search canines, arrived in Misawa, Japan and were immediately dispatched to Ofunato in Iwate prefecture.

In coordination with the Government of Japan (GoJ), the National Japanese USAR teams and our international partners, the U.S. teams made a thorough search of their assigned locations. The GoJ has indicated that the U.S. teams have completed the missions asked of them.

The U.S. USAR teams are now returning to the United States, and they should arrive on Saturday afternoon in LA and just after midnight in Fairfax.

Prior to their departure, the U.S. USAR teams transferred nearly $145,000 in equipment to the Ofunato fire department to assist with local recovery efforts. The equipment includes 4 zodiac boat kits—containing boats, motor, fuel tanks, and paddles—16 kerosene heaters, 160 cots, and 160 sleeping bags.

For individuals and businesses who wish to help those in Japan, we encourage making a cash donation to a reputable organization working in the affected area. Nothing will get there faster or help more at this time. Visit www.usaid.gov for more info or email japanhelp@ofda.gov.

From: LIA02 Hoc
Sent: Saturday, March 19, 2011 6:36 AM
To: Ramsey, Jack
Cc: Foggie, Kirk; Smith, Brooke; LIA03 Hoc
Subject: FW: Report on Meeting between Chairman Jaczko and Japanese Ambassador to the U.S. Ichiro Fujisaki
Attachments: Doc1.docx; bechtel detailed diagram.pdf; Japan Aid.xlsx; Chairmans March 18 Doc.docx

Hi, Jack,

This message was sent to all the interagency people who receive status reports from the HOC, along with all internal and liaison team stakeholders. Margie said that you might have others in mind who should receive this information. Could you please forward it as you see fit? Unfortunately, there is only one computer in the ops center from which this message (and all messages using the full contact list) can be sent, and those in charge do not want to disclose the full list for obvious reasons. They said it would be fine if someone got the message twice, in case you send it to someone who already got it.

Thanks very much!
Best,
Elizabeth

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

Dear Colleagues,

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

International Liaison Team
U.S. Nuclear Regulatory Commission

From: LIA05 Hoc
Sent: Saturday, March 19, 2011 8:58 PM
To: Quinn, Vanessa
Subject: RE: DHS Liaison QUESTION

Ms. Quinn,

I received a response back from Mr. Brooks. Thank you.

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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DO NOT RELEASE OUTSIDE OF THE FEDERAL FAMILY

From: Quinn, Vanessa [mailto:Vanessa.Quinn@dhs.gov]
Sent: Saturday, March 19, 2011 8:56 PM
To: Ralston, Michelle; LIA05 Hoc; Seward, Andrew; Sherwood, Harry; Horwitz, Steve; Greten, Timothy; Quinn, Vanessa
Subject: Re: DHS Liaison QUESTION

if you are unable to get Marc, let me know and I will call Craig Conklin.
Vanessa E. Quinn
Branch Chief, REP Program
Technological Hazards Division
National Preparedness Directorate
DHS/FEMA

From: Ralston, Michelle <Michelle.Ralston@dhs.gov>
To: LIA05.Hoc@nrc.gov <LIA05.Hoc@nrc.gov>; Seward, Andrew <Andrew.Seward1@dhs.gov>; Sherwood, Harry <harry.sherwood@dhs.gov>; Horwitz, Steve <steve.horwitz@dhs.gov>; Greten, Timothy <Timothy.Greten@dhs.gov>; Quinn, Vanessa <Vanessa.Quinn@dhs.gov>
Sent: Sat Mar 19 17:50:01 2011
Subject: Re: DHS Liaison QUESTION

I would recommend you reach out to Mr. Marc Brooks.

(marc.brooks@dhs.gov)

Respectfully,

Michelle Ralston

(202) 280-9304

XXXX-339

From: prvs=052525006=LIA05.Hoc@nrc.gov <prvs=052525006=LIA05.Hoc@nrc.gov>
To: Andrew Seward <Andrew.Seward1@dhs.gov>; Harry Sherwood <harry.sherwood@dhs.gov>; Michelle Ralston <Michelle.Ralston@dhs.gov>; Steve Horwitz <steve.horwitz@dhs.gov>; Tim Greten <Timothy.Greten@dhs.gov>; Vanessa E. Quinn <Vanessa.Quinn@dhs.gov>
Sent: Sat Mar 19 17:47:46 2011
Subject: DHS Liaison QUESTION

Has anyone heard about DHS IP deploying a liaison to the NRC Operations Center? I understand that there were phone conversations between Mr. Conklin and the Liaison Team Director yesterday and it is on an action list but no one can get a status.

Thank you for your attention to this matter.

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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David Decker

From: Shane, Raeann
Sent: Sunday, March 20, 2011 5:43 PM
To: OCA Distribution
Subject: Sunday 3/20 3:00 Congressional Staff briefing summary

Today's conference call went well. Eric Leeds took the lead and covered the reactor information and Don Cool participated for the radiation/dose modeling information.

We had staffers from:

Congressman Markey – Michal and Avenel
Congressman Hoyer – Mary Frances
EPW majority and minority – Annie, but I'm not sure who the majority person was, they did not ask any questions and I missed the beginning of the call
Lieberman – Chris Griffin
One other office that I did not get.

There was some confusion over the call in phone number so I was trying to find the call in number when Eric realized he had it and began the call without me at 3:00.

Summary of Questions:

Lieberman's office asked:
Q: Is water reaching the spent fuel pool? A: we are not sure
Q: Is our 50 mile evacuation recommendation still good? A: Yes, we are staying with it for now until we get better dose numbers.
Q: Is Japan still at 20km? A: Yes.
Q: Can we get a follow-up briefing on how the dose modeling is done. A: OCA will work to set up a phone call or briefing. (Annie, Chris Griffin interested and Chris thinks Jonathan Epstein would want to be on it too)

EPW/Inhofe:
Q: Do they have instrumentation in the SFP that could work if they get power? A: We are not sure what condition it is in. It probably has been damaged by the explosions.
Q: Can you talk about the scenarios you put out with the press release? A: We had to make assumptions, the calculations are conservative. You have to plan for what could happen, not what is happening currently. We are not getting information from Japan that would let us do better modeling.
Q: How could you get 100% release of activity in the SFP? A: You would not. Some would remain in the pool. Our models take that into account. If we had used the assumption that 100% was released the numbers we put out would have been much much higher.

Markey:
Q: Why is it taking so long to get the power going again? A: They have multiple challenges including the damage from the earthquake/tsunami and the high dose rates in the plant.
Q: Would you be getting better information if this were happening in the US? A: Yes, we practice this with our licensees and the states all the time. The DOE and states would be taking measurements and the licensee would be doing surveys. We know TEPCO is doing surveys but we do not have the information. Q: Why won't they give it to you? A: We keep asking.
Q: How are the ariel measurements taken? A: They are flying in grids. If they get to an area with a dose rate of 0.5 R/hr they have to turn back. They have not been flying over the plant because the dose is too high. They are flying North, South, and West of the plant.

Hoyer:

XXXX-340

Q: Can you talk more about the Industry Consortium? How will this be different? A: They will have better access to Ministry of Defense and it can be a better coordinated response.
Q: Is there precedence for this with other natural disasters? A: We are not sure.

1 IOU. They want a follow-up briefing on the radiation/dose modeling. Don Cool could do it or potentially Cyndi Jones, Trish or Vince Holahan.

From: Doane, Margaret
Sent: Sunday, March 20, 2011 12:42 PM
To: Wiggins, Jim; Weber, Michael; OST02 HOC; LIA06 Hoc; LIA02 Hoc
Subject: Re: Update

Jim. OIP is reviewing and will give our views shortly.
Margie

Sent from an NRC Blackberry
Margaret Doane

From: Wiggins, Jim
To: Weber, Michael; OST02 HOC; LIA06 Hoc
Cc: Doane, Margaret
Sent: Sun Mar 20 12:31:38 2011
Subject: RE: Update

I'm on watch and need some direction wrt to the phone call. I've tasked the Liaison Team to set up the call. Need to give the team definitive guidance re: the players, by name, on the call. We put USAID on it based on the Chairman's email...though he put a ? after that org.

From: Weber, Michael
Sent: Sunday, March 20, 2011 12:22 PM
To: Wiggins, Jim; OST02 HOC; LIA06 Hoc
Subject: FYI - Update

From: Doane, Margaret
To: Ramsey, Jack; Henderson, Karen
Cc: Mamish, Nader; Weber, Michael; Virgilio, Martin; Borchardt, Bill
Sent: Sun Mar 20 12:17:22 2011
Subject: Fw: Update

Jack and Karen
Please review questions at issue below. I think NSC should be on line at 2:00, involved in organizing this. It has lead in multi-agency effort not definitely anyone's jurisdiction. US AID to me is logistics, after others put plan in place.
As for contact at Embassy, the economic counselor at the embassy deals with industry interacting with Japan on a routine basis. Why shouldn't we put these questions to the EC in Tokoyo.
What are you views.
Margie
Margie

Sent from an NRC Blackberry
Margaret Doane

From: Borchardt, Bill
To: Wiggins, Jim
Cc: Weber, Michael; Virgilio, Martin; Doane, Margaret

XXX-BH

Sent: Sun Mar 20 11:24:17 2011
Subject: FW: Update

Please have someone set up the call

From: Jaczko, Gregory
Sent: Sunday, March 20, 2011 11:15 AM
To: Borchardt, Bill
Cc: Batkin, Joshua; Weber, Michael; Virgilio, Martin; Wiggins, Jim
Subject: Re: Update

Set up the pre 2 pm call and include ellis and usaid(??)

From: Borchardt, Bill
To: Jaczko, Gregory
Cc: Batkin, Joshua; Weber, Michael; Virgilio, Martin; Wiggins, Jim
Sent: Sun Mar 20 11:12:17 2011
Subject: Update

Chairman,

1) Just got off the phone with Bill Webster (INPO). INPO has committed to send 2 industry people with logistics type experience to Japan to begin enhanced interactions with TEPCO. They are expected to leave tonight or Monday. I assured him that our in-country team (and the embassy) would help establish points of contact between the US industry reps and the TEPCO/Japan reps.
2) I believe that you are going to have to weigh in on the subject of identifying a lead US Government entity that has the necessary project management and logistics expertise. I raised the topic at the "consortium" meeting Saturday afternoon and privately with DOE (Pete Lyons) and the Naval Reactors representative but did not make any headway. Everyone seems to agree that NRC does not have the necessary skill set but neither of those 2 organizations were immediately willing to assume that role. There is a 2pm Monday status update teleconference being set up for consortium participants. It might be useful if you, DOE, and ADM Donald could talk before the 2pm call.

Bill

David Decker

From: Droggitis, Spiros
Sent: Monday, March 21, 2011 12:35 PM
To: OCA Distribution
Subject: FW: Prepared Remarks for Commission Meeting Monday, March 21, 2011
Attachments: 11-054.docx

Just sent this out to Japan distribution

From: Droggitis, Spiros
Sent: Monday, March 21, 2011 12:33 PM
To: Droggitis, Spiros
Subject: Prepared Remarks for Commission Meeting Monday, March 21, 2011

PREPARED REMARKS FOR COMMISSION MEETING
MONDAY, MARCH 21, 2011

Good morning. The Commission meets today to discuss the tragic events in Japan and consider possible actions we may take to verify the safety of the nuclear facilities that we regulate in the United States. This meeting will—without a doubt—be one of the most heavily watched meetings in the history of this agency.

People across the country and around the world who have been touched by the magnitude and scale of this disaster are closely following the events in Japan, and the repercussions in this country and in many other countries. I would first like to offer my condolences to all those who have been affected by the earthquake and tsunami in Japan. Our hearts go out to all who have been dealing with the aftermath of these natural disasters, and we are mindful of the long and difficult road they will face in recovering. We know that the people of Japan are resilient and strong, and we have every confidence that they will come through this difficult time and move forward, with resolve, to rebuild their vibrant country.

I believe I speak for all Americans when I say that we stand together with the people of Japan at this most difficult and challenging time. The NRC is a relatively small agency, with approximately 4000 staff, but we play a critical role in protecting the American people and the environment. We have inspectors who work full-time at every nuclear plant in the country, and we are proud to have world-class scientists, engineers and professionals representing nearly every discipline.

Since Friday, March 11, when the earthquake and tsunami struck, the NRC's headquarters Operations Center has been operating on a 24-hour basis to monitor and analyze events at nuclear power plants in Japan. At the request of the Japanese government, and through the United States Agency for International Development (USAID), the NRC sent a team of its technical experts to provide on-the-ground support, and we have been in continual contact with them. And, within the United States, the NRC has been working closely with other Federal agencies as part of our government's response to the situation.

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.

XXXX-342

As this immediate crisis in Japan comes to an end, we will look at any information we can gain from the event and see if there are changes we need to make, to further protect the public. Together with my colleagues on the Commission, we will review the current status and identify the steps we will take to conduct that review. In the meantime, we will continue to oversee and monitor plants to ensure that U. S. reactors remain safe.

On behalf of the Commission, I want to thank all of our staff for maintaining their focus on our essential safety and security mission throughout these difficult days. I want to acknowledge their tireless efforts and their critical contributions to the U.S. response to assist Japan. In spite of the evolving situation, the long hours, and the intensity of efforts over the past week, staff has approached their responsibilities with dedication, determination and professionalism, and I am incredibly proud of their efforts.

The American people also can be proud of the commitment and dedication within the Federal workforce, which is exemplified by our staff every day. Before we begin our meeting with Mr. Borchardt's presentation, would any of my fellow Commissioners like to make opening comments?

###

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

OEDO

From: Leeds, Eric
To: Grobe, Jack; Boger, Bruce
Cc: Ruland, William
Subject: FYI: Agenda Planning Meeting
Date: Monday, March 21, 2011 10:47:00 AM
Attachments: Possible Chairman Proposal.docx

This is very tentative – but a number of meetings would be cancelled and others inserted. FYI.

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

From: Virgilio, Martin
Sent: Sunday, March 20, 2011 11:38 PM
To: Johnson, Michael; Leeds, Eric; Wiggins, Jim
Subject: Agenda Planning Meeting

All

Note the possibility of the puts and takes.

Marty

From: Andersen, James IEDO
Sent: Sunday, March 20, 2011 6:18 PM
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Ash, Darren; Muessle, Mary; Landau, Mindy; Leeds, Eric
Cc: Bavol, Rochelle; Laufer, Richard; Vietti-Cook, Annette
Subject: Agenda Planning Meeting

Over the weekend, I have been called into a number of Agenda Planning discussions with the Chairman's office and finally today with the Chairman. I believe the attached is close to what the Chairman plans to propose during the 11:00am meeting. The Chairman understands this is aggressive and may push the staff to far. A point I tried to make a couple times in a nice manner. I can discuss more during the 8:00am meeting if needed. Since I created this document, I don't know how close this will be to the actual document the Chairman's office creates for the Chairman's use.

I have copied SECY to give them a heads up.

Jim A.

XXXX-BHB

Possible Chairman Proposal for Commission Meetings

3/21	Japanese Earthquake Status
3/24	50.46(a) – CANCEL, discuss whether to withdraw paper
3/29	SMR – CANCEL, keep paper for review
3/29	Possible Commission Meeting on Status Update on Japan Event plus Radiation Consequences with External Stakeholders
3/30	Senate Congressional Hearing
3/31	House Congressional Hearing
3/31	McGaffigan Award
Week 4/4	EPW Hearing
	Chairman to CNS ?
Week 4/11	Possible Commission Meeting on Status Update on Japan Event plus Design Basis and Beyond Design Basis (No External Panel)
Week 4/18	Source Security (4/19)
Week 4/25	Possible Commission Meeting on Status Update on Japan Event plus Natural Hazards (No External Panel)
	ITAAC Commission Meeting – CANCEL
Week 5/2	30 Day Quick Look Report Commission Meeting (No paper)
	Cumulative Effects Commission Meeting – CANCEL
Week 5/9	Emergency Planning Commission Meeting (Final Rule plus how EP works)
Week 5/16	Exercise
Week 5/23	AARM Commission Meeting (5/27)
Week 5/30	Human Capital and EEO (moved from 5/3)
Week 6/6	ACRS (topics may need to change)
Week 6/13	International Commission Meeting – POSTPONE
	60 Day Quick Look Report Commission Meeting (No paper)
Week 6/20	??
Week 6/27	??
Week 7/4	PRA Level 3 (would need to move up paper)

Week 7/11	IRRS Action Plan Commission Meeting
Week 7/18	90 Day Quick Look Report Commission Meeting (paper)
Week 7/25	Stakeholder Commission Meeting on 90 Day Quick Look Report

From: Hoc, PMT12
Sent: Tuesday, March 22, 2011 1:01 PM
To: Jaczko, Gregory
Cc: Virgilio, Martin; Weber, Michael; Johnson, Michael; Miller, Charles; Moore, Scott; Cool, Donald; Tappert, John; Borchardt, Bill; Wiggins, Jim; Carpenter, Cynthia; Ordaz, Vonna; Batkin, Joshua; Coggins, Angela; Lubinski, John; Zimmerman, Roy; FOIA Response.hoc Resource; PMT03 Hoc; Lewis, Robert
Attachments: Relaxing protective action criteria EDITS 03-22-2011.doc

Chairman,

Please see the requested information regarding the process for relaxing protective action recommendations.

PMT

Q: What are the criteria that the NRC would use to relax its previous protective action recommendation.

A: Brief response: Within the United States the decision to relax a protective action decision is based on confidence that any significant additional release is unlikely and on actual environmental measurements obtained and analyzed by the Federal Radiological Monitoring and Assessment Center (FRMAC) and that the plant is in a stable condition. These decisions are generally not made until the radioactivity release has been terminated and the source of the release is under control. The primary criteria for the decision to relocate a population from the affected area or allow re-entry to the affected area would be protective action guidance provided by the Environmental Protection Agency in its "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," EPA 400-R-92-001, May 1992. Generally, re-entry would not be allowed until the projected dose (based on actual measurements) due to ground deposition was less than 2 rem in the first year, or limiting doses as defined for the second through 50 years.

Explanation

For events which occur at nuclear facilities licensed by the Nuclear Regulatory Commission (NRC), the radiological annex to the National Response Framework, (NRF) defines the relationships between the Federal, state, and local emergency response organizations. In the early phase of the emergency, the operator of the facility (licensee) is expected, amongst other actions, to assess the conditions and recommend evacuation or sheltering protective actions to the affected state and local emergency response organizations. These protective actions recommendations may be based on plant status and prognosis, the results of radiological assessments and projections, or a combination of both. The NRC performs independent assessments of the conditions as a matter of regulatory oversight, and works with the licensee to resolve differences. The state and local

emergency response organizations consider the licensee's recommendation and decide upon the protective actions that will be implemented.

The early phase of the response ends when the radioactivity releases have been terminated, the plant is in a stable condition and the source of the radioactivity release is under control. The intermediate phase commences at this point.

Once the protective action decision (and any subsequent revisions) has been implemented, the decision to relax the protective actions and allow public re-entry to the affected areas is based on reassurance of no further release and on actual measurements and samples obtained in the affected area. The FRMAC, along with the affected states and local organizations, perform this assessment as the basis for decisions regarding relaxation of the protective actions to allow re-entry. The agencies that comprise the Interagency FRMAC, by statute, have the monitoring and assessment assets necessary to accomplish these tasks. Although the NRC will have representatives at the FRMAC, the NRC is not the lead federal agency for environmental monitoring under the radiological annex to the NRF, the lead is EPA.

In the United States, the EPA has established protective action guides for the intermediate phase that requires that the general population be relocated outside of the affected area if the projected effective dose equivalent from external gamma radiation from ground deposition and the committed effective dose equivalent from inhalation from re-suspended materials exceeds 2 rem in the first year. Re-entry would generally not occur as long as the projected dose in the first year exceeds 2 rem. It is important to note that are post plume assessments are based on the results of actual field measurements and sampling results. In the context of the Japanese event, these principals would still be generally applicable, although US field assessment capability should be augmented with available Japanese data.

CRITERIA

1. Radioactivity releases have been terminated and the source of the radioactivity release is under control.

2. Decision to allow public re-entry is based on field measurements and samples obtained from the affected area once the above criteria are satisfied.

3. Re-entry would not generally occur as long as the projected dose in the first years exceeds 2 rem, or exceeds 0.5 rem in the second year, or exceeds 5 rem in 50 years, depending on which case is most limiting.

M:\PMT\Relaxing protective action criteria.doc

David Decker

From: Harrington, Holly
Sent: Tuesday, March 22, 2011 9:33 AM
To: Schmidt, Rebecca; Powell, Amy; Decker, David
Cc: Weil, Jenny
Subject: RE: comment from the blog

Likely we were not invited. But I want to be able to say that, if it's true. Invite would not have come through OCA?

From: Schmidt, Rebecca
Sent: Tuesday, March 22, 2011 9:30 AM
To: Powell, Amy; Harrington, Holly; Decker, David
Cc: Weil, Jenny
Subject: RE: comment from the blog

Holly—we were invited? Should check with FSME

From: Powell, Amy
Sent: Tuesday, March 22, 2011 9:28 AM
To: Harrington, Holly; Decker, David
Cc: Schmidt, Rebecca; Weil, Jenny
Subject: Re: comment from the blog

Holly - I'm including Becky and Jenny on this as neither David nor I are in the office.
Amy Powell
Associate Director
Office of Congressional Affairs
U. S. Nuclear Regulatory Commission
Phone: 301-415-1673

Sent from my Blackberry

From: Harrington, Holly
To: Powell, Amy; Decker, David
Sent: Tue Mar 22 09:26:57 2011
Subject: comment from the blog

This question was posted as a blog comment. Before I post it, I'd like to know how to answer:

On March 21, 2011, The California Senate Select Committee on Earthquake and Disaster Preparedness held hearings on the impact and lessons learned from the disaster in Japan. Southern California Edison (SONGS) and Pacific Gas and Electric (Diablo Canyon) made presentations and responded to questioning by Chair Corbett and members of the Committee. Numerous safety related issues were raised and the Commission's licensing process was impugned.
Why wasn't NRC represented at this important meeting?

XXXX-3415

David Decker

From: LIA12 Hoc
Sent: Tuesday, March 22, 2011 3:07 PM
To: Schmidt, Rebecca; Powell, Amy; Riley (OCA), Timothy; Droggitis, Spiros; Shane, Raeann; Decker, David; Dacus, Eugene; Weil, Jenny
Subject: FW: Can you please send me

FYI

From: LIA02 Hoc
Sent: Tuesday, March 22, 2011 3:00 PM
To: LIA12 Hoc
Cc: Droggitis, Spiros
Subject: FW: Can you please send me

FYI

From: Shaffer, Mark R [mailto:ShafferMr@state.gov]
Sent: Tuesday, March 22, 2011 2:58 PM
To: LIA02 Hoc
Cc: Schwartzman, Jennifer
Subject: RE: Can you please send me

Sen. Saxby Chambliss (R-GA); Sen. Tom Coburn (R-OK); Sen. Dan Coats (R_IN); Sen. Richard Burr (R_NC); and Cong. Mike Rogers (R-MI).

They were here in Vienna to talk to folks at CTBTO and met with Ambassador Davies. AMBO briefed them on the full suite of International Organizations that UNVIE looks after. During the meeting, apparently a few questions came up about the Japan disaster. Ambassador Davies called me into the conference room and asked me to provide a brief overview of the situation. I gave them a quick summary of the plant status and outlook for the future, and then fielded a few questions from each of the distinguished guests. I think it went well. They seemed satisfied.

This email is UNCLASSIFIED.

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Tuesday, March 22, 2011 6:35 PM
To: Shaffer, Mark R
Subject: Can you please send me

The names of the Senators again? OCA wants to see. I scribbled them down but they don't recognize the last one (Roberts?) Thanks!

XXXX 3/6

David Decker

From: Droggitis, Spiros
Sent: Tuesday, March 22, 2011 2:43 PM
To: Shane, Raeann; Schmidt, Rebecca; Weil, Jenny; Decker, David; Powell, Amy; Riley (OCA), Timothy; Dacus, Eugene
Subject: RE: USAID Call

Good precedent.

From: LIA12 Hoc
Sent: Tuesday, March 22, 2011 2:41 PM
To: Shane, Raeann; Droggitis, Spiros; Schmidt, Rebecca; Weil, Jenny; Decker, David; Powell, Amy; Riley (OCA), Timothy; Dacus, Eugene
Subject: USAID Call

Participated in the daily 2:00 p.m. UASID congressional staff call. Jeff Temple provided update on NRC activities. There were no questions for the NRC. USAID announced that the frequency of the call will be reduced. The next call is scheduled for Thursday.

XXXX 3/17

From: LIA10 Hoc
Sent: Wednesday, March 23, 2011 1:52 PM
To: LIA02 Hoc
Subject: 3/23 5pm Tepco press release (underlined segments only)

Unit 3
Starting around 11am on 3/23, until about 1:20pm, seawater was injected to the Spent Fuel Pool. Around 4:20pm on 3/23, Tepco employees noticed blackish smoke emanating from the reactor building. Reporting to fire authorities concluded around 4:25pm. No large changes have been observed in the reactor pressure vessel, the reactor containment vessel parameters, nor to surrounding environmental monitoring readings. Nonetheless, workers in nearby areas were evacuated indoors for good measure.

Unit 4
Water discharged using (a) concrete pump truck(s) from about 10am to about 1pm today, 3/23.

Unit 3
本日 23 日午前 11 時頃から、使用済燃料プールに海水の注入を開始し、午後１時 20 分頃に終了。
・本日 23 日午後４時 20 分頃、原子炉建屋から黒色がかった煙が発生していることを、当社社員が確認。午後４時 25 分頃、消防へ情報提供済み。原子炉圧力容器、原子炉格納容器のパラメータ、周辺環境モニタリング値に大きな変動はみられないが、念のため付近にいる作業員を屋内へ退避。

Unit 4
・本日 23 日午前 10 時頃から、コンクリートポンプ車による放水を開始。同日午後１時頃終了。

XXXX 348

From: ET07 Hoc
Sent: Wednesday, March 23, 2011 6:26 PM
To: Hoc, PMT12
Subject: Information notice
Attachments: DraftINRev1.doc

FYI

XXXX-349

PRIORITY ATTENTION REQUESTED

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, DC 20555

March 24, 2011

Information Notice No. NO 11xx: REQUEST FOR COLLECTION OF LICENSE RADIOACTIVITY MEASUREMENTS ATTRIBUTED TO THE EVENTS FUKUSHIMA-DAIICHI

Addressees:

All nuclear power reactor facility licensees holding an operating license (OL).

Purpose:

The purpose of this information notice is to request voluntary reporting of any licensee environmental radioactivity measurement data attributed to the accident at Fukushima Daiichi plant in Japan.

In order to enhance the Federal and state monitoring programs, all nuclear power reactor facilities with on-going environmental monitoring programs are requested to consider the NRC request to report confirmed anomalous environmental radioactivity measurements likely caused by radioactive material released by the Fukushima-Daiichi plants in Japan. It is requested that recipients provide the environmental data discussed herein.

Description of Circumstances:

In the week following the nuclear accident at Fukushima Daiichi, higher than normal levels of radioactivity have been detected in air and rainwater at several licensee sites. The radionuclides that have been detected in air in these countries include: I-131, Cs-137,

Discussion:

It appears likely that radioactive material from the Fukushima accident has arrived within the continental US in concentrations that are detectable by licensee environmental monitoring equipment. In order to enhance nationwide environmental surveillance, supplement and reinforce this state and federal nationwide surveillance program, the NRC licensees [as part of their routine Environmental Monitoring Program (EMP)] are requested to voluntarily provide the following information:

1 Report to the NRC any anomalous environmental radiation or radioactivity measurement that can be reasonably assumed to have resulted from the Fukushima Daiichi accident. These confirmed measurement results from the licensee's routine EMP should be e-mailed to the NRC Operations Center at hoo.hoc@nrc.gov upon

determining that material from the accident has been measured (Environment air sampling probably is the most sensitive and thus most likely means of detecting the airborne materials Some other less-sensitive potential means of detection may include personnel whole body counting equipment)

The reporting format should provide for:

1 Sample date(s) and approximate locations(s)
2 Medium or pathway (eg, air particulate, air charcoal, milk)
3 Type of analysis (eg, gross beta, iodine-131, other gamma emitter)
4 Statistical data (mean, range, number of samples)

The NRC will collect and dessiminate this information to appropriate federal Agencies. Because the sensitivity and broad scope of existing licensee programs, augmentation of the NRC licensee EMPs 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 accident)

We appreciate your cooperation with us on this matter If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC regional office, or this office

Timothy McGinty, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

IN 86-32

May 2, 1986

David Decker

From: Lewis, Antoinette
Sent: Wednesday, March 23, 2011 5:33 PM
To: Vietti-Cook, Annette; Baggett, Steven; Bates, Andrew; Batkin, Joshua; Blake, Kathleen; Bollwerk, Paul; Bozin, Sunny; Bradford, Anna; Brown, Theron; Bubar, Patrice; Bupp, Margaret; Burns, Stephen; Chairman Temp; Clark, Lisa; Coggins, Angela; Cordes, John; Crawford, Carrie; Cutchin, James; Davis, Roger; Fopma, Melody; Franovich, Mike; Gibbs, Catina; Hackett, Edwin; Hart, Ken; Harves, Carolyn; Hawkens, Roy; Hayden, Elizabeth; Henderson, Karen; Herr, Linda; Hipschman, Thomas; Hudson, Sharon; KLS Temp; Kock, Andrea; Lepre, Janet; Loyd, Susan; Mamish, Nader; Marshall, Michael; Mitchell, Reggie; Monninger, John; Moore, Scott; OCA Distribution; OPA Resource; Orders, William; Pace, Patti; Poole, Brooke; Rabideau, Peter; Reddick, Darani; Laufer, Richard; RidsEdoDraftSrmVote Resource; RidsOcaaMailCenter Resource; RidsOcfoMailCenter Resource; RidsOgcMailCenter Resource; RidsOigMailCenter Resource; RidsOipMailCenter Resource; Bavol, Rochelle; Rothschild, Trip; Joosten, Sandy; Savoy, Carmel; Sharkey, Jeffry; Shea, Pamela; Snodderly, Michael; Sosa, Belkys; Speiser, Herald; Svinicki, Kristine; Temp, WCO; Temp, WDM; Thoma, John; Warren, Roberta; Zorn, Jason; Temp, GEA; Apostolakis, George; Tadesse, Rebecca; Butler, Gail; Perry, Jamila; Doane, Margaret; Castleman, Patrick; Montes, David; Dhir, Neha; Adler, James; Jimenez, Patricia; Muessle, Mary; Nieh, Ho; Ostendorff, William; Warnick, Greg; Pearson, Laura; Lui, Christiana; Lisann, Elizabeth
Cc: Wright, Darlene; Lewis, Antoinette
Subject: (RESEND) SRM - COMGBJ-11-0002 - NRC Actions Following the Events in Japan
Attachments: SRM-CmGBJ11-0002.docx

CURRENT VERSION

(ML110820875)

In an effort to keep the NRC staff informed of Commission decisions in a timely manner, attached for your information are the Staff Requirements Memoranda (SRMs) signed by the Secretary on March 23, 2011. Please make additional distribution to interested staff members in your office.

If you have any questions, please give me a call on 415-1969.

XXXX 350

From: LIA10 Hoc
Sent: Wednesday, March 23, 2011 11:40 AM
To: LIA02 Hoc
Subject: RE: summary page, NISA News Release No. 46, March 23, 19:00

From p. 17 of Japanese version

Activities of firefighting agencies

ON March 22, approx. 11:00 to 14:00 : Niigata City Fire Dept. and Hamamatsu City Fire Dept. provided guidance to TEPCO as it operated (a) large-scale decontamination system(s).

March 23, 8:30 to 9:30 and 13:30 to 14:30 : Niigata City Fire Dept. and Hamamatsu City Fire Dept. provided guidance to TEPCO as it operated (a) large-scale decontamination system(s).

From: LIA10 Hoc
Sent: Wednesday, March 23, 2011 11:12 AM
To: LIA02 Hoc
Subject: summary page, NISA News Release No. 46, March 23, 19:00

NISA News Release No. 46, March 23, 19:00
Summary Page

Major updates as follows:

1. Nuclear Power Plant related matters
   Fukushima Daiichi NPP

   (Water injection and discharge)

   Unit 4: Concrete pumping truck(s) discharged approx. 130t water at 50t/h (23rd, 10:00 to 13:02)

   Unit 3: 35t seawater injected to Spent Fuel Pool from cooling-cleaning system (23rd, 11:03 to 13:20)

   Somewhat blackish smoke from Unit 3 reactor building (23rd, approx. 16:20).

2. Industrial safety matters
   See separate document.

<u>Activities of firefighting agencies</u>
March 23, 8:30 to 9:30 and 13:30 to 14:30 : Niigata City Fire Dept. and Hamamatsu City Fire Dept. provided guidance on usage of large-scale decontamination system(s).

XXXX-357

From: Hoc, PMT12
Sent: Wednesday, March 23, 2011 3:02 PM
To: Zimmerman, Roy
Cc: ET07 Hoc
Subject: FW: Proposed E-mail to Chairman on KI

Forwarded

From: Hoc, PMT12
Sent: Wednesday, March 23, 2011 1:28 PM
To: Weber, Michael
Subject: Proposed E-mail to Chairman on KI

Chairman

The NRC does not have any KI in the pipeline that could be diverted to assist Japan. The States may be willing to assist and contribute some of the KI they have in their stockpile. No formal action has been taken at this time to approach the States in this regard.

XXXX-353

Wagner, Katie

From: Wagner, Katie
Sent: Thursday, March 24, 2011 5:30 PM
To: Lee, Richard
Subject: RE: NRC Ops Center seeks information on Robotic assets for Japan

Richard – Is this a request that needs to be logged or just fyi? - Katie

---

From: Lee, Richard
Sent: Thursday, March 24, 2011 10:10 AM
To: LIA01 Hoc
Cc: Wagner, Katie
Subject: RE: NRC Ops Center seeks information on Robotic assets for Japan

Thanks for the information.
Will provide this information to DOE. No further action from NRC will be take at this time.

From: LIA01 Hoc
Sent: Thursday, March 24, 2011 10:02 AM
To: inpoercassistance@inpo.org; Lee, Richard
Cc: LIA11 Hoc
Subject: FW: NRC Ops Center seeks information on Robotic assets for Japan

FYI – sorting through the flood of emails in our box.

From: Szilagyi, Andrew [mailto:Andrew.Szilagyi@em.doe.gov]
Sent: Thursday, March 24, 2011 8:02 AM
To: LIA01 Hoc; 'inpoercassistance@inpo.org'
Cc: Marcinowski, Frank; Neu, Mary; Collazo, Yvette; Deleon, Edgardo
Subject: FW: NRC Ops Center seeks information on Robotic assets for Japan

Attached is a picture of a robot that could be made available from our Oak Ridge National Laboratory.

From: Parks, Cecil V.
Sent: Wednesday, March 23, 2011 12:43 PM
To: Paula.Kirk@em.doe.gov
Cc: Schneider, Ken R.
Subject: FW: NRC Ops Center seeks information on Robotic assets for Japan

Paula:
Given fact the request indicates there is no commitment, only working to identify potential equipment, I think it is fine to identify this robot as a potential asset. Get more info from Ken if you need it. If you get any indication they might want to pursue its use, please let Ken know ASAP so we can pursue the property-related issues identified by Kelly with legal and others.
Thanks,
Cecil

From: Szilagyi, Andrew
Sent: Tuesday, March 22, 2011 7:53 AM
To: 'LIA01 Hoc'
Cc: Abu-Eid, Boby; Triay, Ines; Picha, Kenneth G.; Marcinowski, Frank; Collazo, Yvette
Subject: RE: NRC Ops Center seeks information on Robotic assets for Japan

XXXX-353

Good Morning Lisa,

Whereas each of our sites and contractors may, we don't maintain an equipment list here DOE Headquarters. That said, many of our contractors and National Laboratories have and have developed numerous robotic devices. Additionally, vendors (for example, but certainly not limited to companies such as SA Technologies, RedZone Robotics, Brokk, [and numerous others], specialize in remote/robotic equipment for D&D). EM's Corporate Laboratory is Savannah River National Lab, and they have developed and tested numerous robotic/remote devices for use during D&D (as has Oak Ridge National Laboratory, and Idaho National Laboratory).

Please let me know if I can be of more specific assistance.

Andrew Szilagyi
Director, Office of D&D and Facility Engineering
Office of Environmental Management
US Department of Energy

From: LIA01 Hoc [mailto:LIA01.Hoc@nrc.gov]
Sent: Tuesday, March 22, 2011 6:00 AM
To: Szilagyi, Andrew
Cc: Abu-Eid, Boby
Subject: NRC Ops Center seeks information on Robotic assets for Japan

Mr. Szilagyi-
I was given your name by Boby Abu-Eid as someone who might be able to assist me. I have copied him on this email. As a Federal Liaison Officer in the NRC's Operations Center, I've been tasked with trying to help develop a list of robotic devices that might aid in getting a closer look at the power plants in Japan along with agencies that might be able to offer such devices.

At this point we are not asking for a commitment from you or your agency for resources, we are just trying to get an idea of the available technologies should the Japanese government request that type of assistance.

I would sincerely appreciate any information that you could share, including the names and contact information for any contractors or vendors.
Again, I am only looking for information on available assets, we are NOT looking to purchase.

I will be going off shift at 0700 but my relief will be able to answer any questions you might have about this unusual request.

Thanks so much for your support

Lisa Gibney Wright
Federal Liaison Officer
US Nuclear Regulatory Commission
Ph: 301-816-5186

From: LIA02 Hoc
Sent: Thursday, March 24, 2011 9:23 AM
To: Foggie, Kirk; Smith, Brooke
Cc: LIA03 Hoc
Subject: FW: Chairman Meeting and NRC JapanTeam Meetings - March 24

Have you got any information on this.
Steve

From: Mamish, Nader
Sent: Thursday, March 24, 2011 7:20 AM
To: LIA02 Hoc; LIA03 Hoc
Cc: Abrams, Charlotte; Schwartzman, Jennifer; Foggie, Kirk; Smith, Brooke; Kreuter, Jane; 'ShafferMR@state.gov'; Doane, Margaret
Subject: RE: Chairman Meeting and NRC JapanTeam Meetings - March 24

Thanks. Do we have any intelligence on what NISA is likely to raise to the Chairman?

From: LIA02 Hoc
Sent: Thursday, March 24, 2011 5:38 AM
To: Doane, Margaret; Mamish, Nader
Cc: LIA03 Hoc; Abrams, Charlotte; Schwartzman, Jennifer; Foggie, Kirk; Smith, Brooke; Kreuter, Jane; 'ShafferMR@state.gov'
Subject: Chairman Meeting and NRC JapanTeam Meetings - March 24

Please note: the meeting between Chairman Jaczko and NISA is at 5:30 p.m. EST on Thursday, March 24, 2011. Kirk has asked his NISA POC to provide a phone number for the Chairman's Office to call NISA.

Information from call with Kirk and Brooke concerning today's (March 24) meetings:

NISA/TEPCO – Daily NISA provides a Status Update on their webpage. NISA/TEPCO representatives were sharing their numbers and explained their confidence in instrumentation to NRC Japan Team so that they all have the same understanding. NRC Japan Team had many questions of TEPCO and TEPCO has promised to get back with responses.

NISA – Discussed three areas of assistance and what they actually need. Brooke will meet with NISA again on Friday (3/25) and set up meetings for Saturday and Sunday for Marie Miller and Todd Jackson to meet with NISA to discuss details.

During the above meetings they introduced Mike Scott and Alan Blamey to NISA and TEPCO. The Japanese are concerned about the transition as they have built trust and a good working relationship with the first NRC Japan team. The NRC Japan Team has assured them that there will be a period of overlap and the members of the first NRC Japan team will still be engaged from the U.S.

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From: OST02 HOC
Sent: Thursday, March 24, 2011 5:39 PM
To: LIA02 Hoc; LIA03 Hoc
Subject: Potential Background Questions from NISA Chairman to Chairman Jaczko of the USNRC
Attachments: 03-24-2011 1630 EDT Questions from NISA Chairman to Chairman Jaczko of the USNRC.doc

FYI...

XXXX-555

Potential Questions from NISA Chairman to Chairman Jaczko of the USNRC

1. I understand you are working on a technical document that provides your assessment of conditions at the Fukushima Daiichi plants, and possible recommendations to address current concerns. When do you think you will have this document available for us?

   A: Our response center staff is busy pulling together the finishing touches on this document, in coordination with the representatives of several other agencies in the U.S. government in coordination with industry representation on nuclear issues.

2. What do you believe should be our highest priority?

   A: Keeping the reactor cores cooled is most important, then shifting the source of your cooling water to the reactor cores to a fresh water source is quite important. Additional details will be provided in the document being finalized for you.

3. Has your agency identified any other recommendations or contingency planning we should consider during our recovery?

   A: We believe it is of paramount importance to assist our friends in Japan. To that end, our emergency response center staff, members of other agencies, and representatives in industry are working around the clock, examining all facts that we have been able to gather on this event, and are prepared to provide technical assistance in any manner you would need.

4. Can you describe the purpose of the U.S. presence in Japan?

   A: NRC has a team of individuals providing advice and assistance to the U.S. Ambassador in Tokyo. The team is also supporting U.S. efforts to assist Japan in dealing with the challenges associated with bringing Fukushima Daiichi to a safe and secure state.

   A group of U.S. industry representatives are also being assembled in Japan with support from INPO offices in Atlanta to facilitate the location and delivery of supplies, services, and materials. A technical support organization is also in place in Atlanta to facilitate the timely response to requests for technical support during the mitigation and stabilization phase of the Fukushima Daiichi event. (Question was suggestion from Chuck Casto).

5. When will NARAC modeling results be provided?

   A: The PMT recently identified a need to update the source term and the release rate from those that we previously provided to NARAC about 12 hours ago, based on information obtained from the RST and the Japanese officials (core damage in unit 1 is 70% vs previously assumed 33%; 100% containment breach in units 2 and 3 vs previously assumed design containment leakage rate). NRC

held a telecon with NARAC at 5:00pm today to request these changes. Results should be available tomorrow morning.

6. General criteria as to when NRC would relax its PAGs to allow for re-entry into the 50-miles EPZ to gather personal belongings, pets, etc.

A:

- Radioactivity releases have been terminated (or clearly under control) and the source of the radioactivity release is manageable.
- Decision to allow public re-entry is based on actual field measurements and samples obtained from the affected area once the above criteria are satisfied.
- Re-entry would not generally occur as long as the projected dose in the first years exceeds 2 rem, or exceeds 0.5 rem in the second year, or exceeds 5 rem in 50 years, depending on which case is most limiting.

From: LIA05 Hoc
Sent: Thursday, March 24, 2011 4:17 PM
To: Feighert, Dan
Subject: RE: Inquires related to U.S procedure during Nuclear Emergency

Mf. Feighert,

Thank you.

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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-----Original Message-----
From: Feighert, Dan [mailto:dan.feighert@dhs.gov]
Sent: Thursday, March 24, 2011 4:16 PM
To: LIA05 Hoc
Cc: Vanessa E. Quinn; Sherwood, Harry; Purvis, James; Ralston, Michelle; Coons, Albert; Sheffield, Bonnie
Subject: RE: Inquires related to U.S procedure during Nuclear Emergency

Ken here is the response to the inquiry.

References that address your question are NUREG 0654/FEMA-REP-1, Rev-1, Part 2, Planning Standard M, Recovery and Reentry Planning and Postaccident Operations (see attached file) and the FEMA Interim Radiological Emergency Preparedness (REP) Program Manual, Section III.B, page III-72. While both of these documents address Re-entry and Recovery and provides general guidance, neither provides detailed procedures or comprehensive steps nor a template for organizational plans. The guidance provides and allows for the flexibility for jurisdictions to develop their emergency plans and procedures that best addresses the variables and risks that are unique to the State and local communities. The States and local emergency plans/procedures have specific and tailored procedures for the relocation, re-entry and recovery.

The above documents can be found at this web site. http://www.fema.gov/about/divisions/thd_repp.shtm

-----Original Message-----
From: prvs=0573bcf4e=LIA05.Hoc@nrc.gov [mailto:prvs=0573bcf4e=LIA05.Hoc@nrc.gov] On Behalf Of LIA05 Hoc
Sent: Wednesday, March 23, 2011 6:43 PM
To: Dan Feighert; Andrew Seward; Harry Sherwood; John Simpson; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn
Subject: FW: Inquires related to U.S procedure during Nuclear Emergency
Importance: High

XXXX-356

NRC Ops has requested any guidance FEMA can provide.

Larry Broockerd Dayshift 0700-1500
Harry Nash Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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-----Original Message-----
From: LIA02 Hoc
Sent: Wednesday, March 23, 2011 8:39 PM
To: LIA05 Hoc
Subject: FW: Inquries related to U.S procedure during Nuclear Emergency
Importance: High

-----Original Message-----
From: Smith, Brooke
Sent: Wednesday, March 23, 2011 7:32 PM
To: LIA02 Hoc; LIA03 Hoc; Emche, Danielle
Subject: FW: Inquries related to U.S procedure during Nuclear Emergency
Importance: High

I received this request for assistance from NISA. I think the best approach would be to first provide them with relevent NUREGS. Please reach out to our technical staff. I will communicate directly with Mr. Hara. Thanks!

From: hara-nobuyuki@meti.go.jp [hara-nobuyuki@meti.go.jp]
Sent: Wednesday, March 23, 2011 10:09 AM
To: Smith, Brooke
Cc: fuchigami-yoshihiro@meti.go.jp; koyama-masaomi@meti.go.jp
Subject: Inquries related to U.S procedure during Nuclear Emergency

Dear Ms Brooke Smith,

Please let me allow to introduce myself first.
My name is Nobuyuki Hara working for NISA, METI. I have some inquiries related to U.S Nuclear Emergency Procedure.
My colleague, Mr. Koyama at International Affairs Office of NISA kindly suggested me to contact you directly regarding this issue.

As you know we are still on the process of nuclear emergency response. However response activities are terminated when the situation has been stabilized.
We believe that at this point, potential threats to workers, the public, the environment, and national security have been characterized, conditions no longer meet established categorization criteria, and it appears unlikely that conditions will deteriorate.

The emergency is then declared terminated and the activities should focus on recovery.

In this context, we are more than happy to know U.S procedure.
I am wondering if you could provide some appropriate U.S document on this procedure of termination and the procedure on how to allow people to enter in the Emergency Planning Zone (EPZ) that people was forced to evacuate from that zone.

It would very much appreciate it if you could contact me whenever you will be convenient during your stay in Japan.

Thank you very much for your kind assistance.

Best regards,
Nobuyuki Hara

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Nobuyuki Hara (Mr.)
Deputy Director, NISA
Tel: +81 3-3501-1503
E-mail: hara-nobuyuki@meti.go.jp

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

David Decker

From: Powell, Amy
Sent: Thursday, March 24, 2011 10:51 AM
To: 'Annie_Caputo@epw.senate.gov'; Dedrick, Kathy (EPW); 'laura_haynes@carper.senate.gov'; brian_clifford@barrasso.senate.gov; Baran, Jeff; Dotson, Greg; Pinkele, Abigail; Marshall, John; McCarthy, David; maryam.brown@mail.house.gov; chris.sarley@mail.house.gov; Beckerman, Michael; Clapp, Doug (Appropriations); Apostolou, Carrie (Appropriations); Blair, Rob; 'taunja.berquam@mail.house.gov'
Subject: Tasking memo to NRC staff re: review following events in Japan

Below is a link to the tasking memo to NRC staff, following the Commission's vote, on proceeding with a review following the events in Japan:

http://www.nrc.gov/reading-rm/doc-collections/commission/comm-secy/2011/2011-0002comgbj-srm.pdf

The memo directs NRC staff to 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.

The complete voting record leading to this memo is posted at http://www.nrc.gov/reading-rm/doc-collections/commission/comm-secy/2011/

Amy

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

Riley (OCA), Timothy

From: Shane, Raeann
Sent: Friday, March 25, 2011 1:49 PM
To: Riley (OCA), Timothy; Droggitis, Spiros; Dacus, Eugene; Powell, Amy; Weil, Jenny
Subject: RE: USAID 2pm call schedule?

We did the call yesterday and they did not say anything about stopping them permanently

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From: Riley (OCA), Timothy
Sent: Friday, March 25, 2011 1:41 PM
To: Shane, Raeann; Droggitis, Spiros; Dacus, Eugene; Powell, Amy; Weil, Jenny
Subject: USAID 2pm call schedule?

Does anyone know the status of the 2pm daily calls with USAID? Today's was cancelled and I know they had been tapering off; are we finally free of them?

Tim

XXXX-358

From: Hayden, Elizabeth
To: Akstulewicz, Brenda
Subject: Seismic Issues.docx
Date: Friday, March 25, 2011 4:40:00 PM
Attachments: Seismic Issues.docx

On Monday, can you fix up this Fact Sheet with the same font, format and no line-outs?

XXXX-359

U.S.NRC
UNITED STATES NUCLEAR REGULATORY COMMISSION
Protecting People and the Environment

Fact Sheet

United States Nuclear Regulatory Commission
Office of Public Affairs
Washington, DC 20555
Telephone: 301/415-8200 E-mail: opa@nrc.gov

Field Code Changed

Seismic Issues for Existing Nuclear Power Plants

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 Nuclear Regulatory Commission (NRC) requires all of its licensees to take seismic activity into account when planning and maintaining its nuclear power plants.

Background

The NRC has examined 2008 ~~recent~~ earthquake-related information to assess potential safety implications for nuclear power plants in the Central and Eastern United States (CEUS). The agency requires plant designs to withstand the effects of natural phenomena including earthquakes (i.e., seismic events). The agency's requirements, including General Design Criteria for licensing a plant, are described in Title 10 of the *Code of Federal Regulations* (10 CFR). These license requirements include traditional engineering practices such as "safety margins." Practices such as these add an extra element of safety into design, construction, and operations.

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The NRC has always required licensees to design, operate, and maintain safety-significant structures, systems, and components to withstand the effects of earthquakes and to maintain the capability to perform their intended safety functions. The agency ensures these requirements are satisfied through the licensing, reactor oversight, and enforcement processes.

Earthquake (or Seismic) Hazard

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 historical data's limited accuracy;
- appropriate combinations of the effects of normal and accident conditions with the effects of the natural phenomena; and
- the importance of the safety functions to be performed.

The U.S. Geological Survey (USGS) Web site provides general information about earthquakes (http://earthquake.usgs.gov/learning/index.php). An earthquake releases energy that radiates from the fault and causes ground movement. As the ground moves, objects such as nuclear power plant structures on or in the ground also move. The nature of the movement depends on how the earthquake releases energy and on how the soil conditions absorb (or dissipate) the energy as it

moves away from the fault to a plant location. The intensity of an earthquake can be characterized by both the frequency of the shaking and by the acceleration of the ground at the plant. These characteristics describe how the energy released from the earthquake impacts the plant's buildings as well as the systems and components that are contained inside those buildings.

Earthquake characteristics provide information used in designing existing nuclear plants. The frequency of the shaking is measured in cycles per second (or Hz), and the acceleration is typically expressed as some fraction of the acceleration of gravity, which is about 32.2 feet per second per second (ft/s^2). For example, an acceleration of 0.15 g (15 percent of the acceleration of gravity) is about equal to an acceleration of 5 ft/s2.

Seismic Safety Assessment

The licensing bases for existing nuclear power plants are based on historical data at each site. This data is used to determine design basis loads from the area's maximum credible earthquake, with an additional margin included. The NRC also requires existing plants to assess their potential vulnerability to earthquake events, including those that might exceed the design basis, as part of the Individual Plant Examination of External Events Program. This process examines the available safety margins of existing plants for various earthquakes and ensures these margins, together with the plant's accident management programs, continue to protect public health and safety.

Today, the NRC utilizes a risk-informed regulatory approach, including insights from probabilistic assessments and traditional deterministic engineering methods to make regulatory decisions about existing plants (e.g., licensing amendment decisions). Any new nuclear plant the NRC licenses will use a probabilistic, performance-based approach to establish the plant's seismic hazard and the seismic loads for the plant's design basis.

Evolving Knowledge about Earthquakes

The CEUS is generally an area of low to moderate earthquake hazard with few active faults in contrast to the western United States. Even so, in 1811–1812, three major earthquakes (Magnitude 7 to 7.7 on the commonly used Richter Scale) shook much of the CEUS. These earthquakes occurred near the town of New Madrid, M.O. In 1886, a large earthquake (Richter Scale magnitude of about 7) occurred near Charleston, S.C. This earthquake caused extensive damage and was felt in most of the eastern United States. Geologists are aware of these historic occurrences, and knowledge of such earthquakes was taken into account in plant design and analysis.

The NRC regularly reviews new information on earthquake source and ground motion models. For example, the NRC reviewed updated earthquake information provided by applicants in support of Early Site Permits for new reactors. This additional information included new models to estimate earthquake ground motion and updated models for earthquake sources in seismic regions such as eastern Tennessee and around both Charleston and New Madrid.

Analysis of these updates indicated slight increases to earthquake hazard estimates for some plants in the CEUS. The NRC also reviewed and evaluated recent USGS earthquake hazard estimates for the CEUS that are used for building code applications outside of plant licensing. These reviews showed that the estimated likelihood of earthquakes occurring at some current CEUS operating sites

might be slightly higher than what was expected during design and previous evaluations although adequate protection is maintained at all plants~~.~~

NRC Response to Increased Estimated CEUS Earthquake Hazards

The NRC began assessing the safety implications of increased plant earthquake hazards in the CEUS through a May 26, 2005, memorandum (available under Accession No. ML051450456 in the NRC Agencywide Documents Access and Management System [ADAMS]) in which the staff recommended examining the new CEUS earthquake hazard information under the Generic Issues Program (GIP). The NRC staff identified the issue as GI-199 in a June 9, 2005, memorandum (ADAMS Accession No. ML051600272) and completed the screening analysis for the issue in January 2008. The staff then assessed available earthquake data and models.

The GIP confirmed that operating nuclear power plants remain ~~are~~ safe with no need for immediate action. ~~.~~ The assessment also found that, although overall seismic risk remains low, ~~still small,~~ some seismic hazard estimates have increased and warrant further attention. In September 2010, NRC issued a Safety/Risk Assessment report (ADAMS Accession No. ML100270582) and an Information Notice (ADAMS Accession No. ML101970221) to inform stakeholders of the Safety/Risk Assessment results.

The NRC is developing a Generic Letter (GL) to request information from all nuclear plants in the CEUS. The GL will be issued for public comment in the late spring 2011 and will present the GL to the Advisory Committee on Reactor Safeguards (ACRS) both before and after the public comment period. NRC expects to issue the GL by the end of 2011, near the time when new seismic models will become available. These new seismic models are being developed by NRC, the U.S. Department of Energy, and the Electric Power Research Institute and will be reviewed by the USGS. Based on NRC's review of that information, a determination will be made regarding any required changes at nuclear plants.

Information regarding this generic issue and the GIP in general is available at http://www.nrc.gov/about-nrc/regulatory/gen-issues.html .

Inspections Following Japan Event

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 will perform inspections to 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. Inspections are expected to be completed by the end of April 2011. The results will be issued in an inspection report by May 13 that will be made publicly available.

~~Further action may include obtaining additional, updated information, as well as developing methods to determine if plant improvements to reduce seismic risk are warranted. Information regarding this generic issue and the GIP in general is available at http://www.nrc.gov/about-nrc/regulatory/gen-issues.html.~~

To read more about risk-related NRC policy, see the ~~fact sheets on~~ Probabilistic Risk Assessment Fact Sheet (http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/probabilistic-risk-asses.html) and Nuclear Reactor Risk (http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/reactor-risk.html). Each provides more information on the use of probability in evaluating hazards (including earthquakes) and their potential impact on plant safety margins. Questions and answers on the March 2011 earthquake and tsunami are available at http://www.nrc.gov/japan/faqs-related-to-japan.pdf .

~~October 2010~~ March 2011

Riley (OCA), Timothy

From: Riley (OCA), Timothy
Sent: Friday, March 25, 2011 4:44 PM
To: Sheron, Brian
Subject: RE: Priority for Fukushima-Daiichi Units

Doing so now. Thanks again.

From: Sheron, Brian
Sent: Friday, March 25, 2011 4:44 PM
To: Riley (OCA), Timothy
Subject: FW: Priority for Fukushima-Daiichi Units

Tim, below is the response to the question about why our priorities changed. Please pass this on to the appropriate staffer who asked the question. Thanks.

From: ET05 Hoc
Sent: Friday, March 25, 2011 4:23 PM
To: Sheron, Brian
Subject: FW: Priority for Fukushima-Daiichi Units

Good afternoon,

In answer to your question about the change in priorities, I'm attaching information from our Reactor Safety Team. This information will be added to the SITRep. Please let me know if there's anything else I can help you with. There is a task entered into the tracker for response to all of the congressional questions that you passed along through the HOOs.

Regards,
Melissa Ralph
Melissa.Ralph@nrc.gov
ET Actions Officer (et05.hoc@nrc.gov)
NRC Headquarters Operation Center

From: RST01 Hoc
Sent: Friday, March 25, 2011 4:19 PM
To: ET05 Hoc
Subject: Priority for Fukushima-Daiichi Units

Per Joe Giiter's request:

Per John Thorp, RST Communicator, at 2319 on 3/24/11:

Updated the Fukushima Daiichi Status Summary, based on the RST Assessment Report identified in the prior entry. The main source of information for the table has not been updated, but the Assessment report and the analysis by the RST during its development led to a decision to assign a revised priority to Units 1 through 4. Unit 1 is priority 1 based on the fact that primary containment integrity can still be preserved, if the responders take the correct actions to inject to the RPV and Primary containment. Unit 2 is priority 2 because of the apparent damage to primary containment and the other barriers to release, requiring continued attention to cool the core and provide water to the primary containment to minimize potential for release.

XXXX-360

Unit 3 is priority 3, because primary containment may be OK but continued attention is required to pursue core cooling and injection. Unit 4 is priority 4 because of progress in addressing the spent fuel pool heat removal requirements, and indicated SFP area temperatures of less than 100degrees C.

Brett Rini
RST Coordinator

Riley (OCA), Timothy

From: Riley (OCA), Timothy
Sent: Friday, March 25, 2011 2:19 PM
To: Logaras, Harral
Subject: RE: RSLO briefings 4 U.S. & State El. Off. at "Braidwood Community Info Meeting"

Thank you, Harral. I had a briefing request from Rep. Kinzinger just before the earthquake and we haven't been able to schedule it. I'm glad we're getting his office this info. I'll follow up with them shortly.
Thanks again!

From: Logaras, Harral
Sent: Friday, March 25, 2011 8:53 AM
To: Heck, Jared
Cc: Benjamin, Jamie; Garmoe, Alex; Riley (OCA), Timothy; Barker, Allan; Mitlyng, Viktoria; Chandrathil, Prema; Pederson, Cynthia
Subject: RSLO briefings 4 U.S. & State El. Off. at "Braidwood Community Info Meeting"

Dear Jared,

I attended Exelon's Braidwood Community Information Meeting held last evening (3/24/11) and interacted with several folks, and provided briefings to Seth Jansen, field office representative for U. S. Congressman Adam Kinzinger – 11th District, Illinois and for Illinois State Representative Pam Roth, 75th District. The briefing was a cooperative effort of all NRC technical and OPA personnel; and points of discussion were:

- Formation and mission safety focus of the NRC
- NRC regulatory and enforcement model
- Resident Inspector program
- BWR and PWR safety, design and operations features (the Nuclear Power 050 course overview)
- U. S. NPP design features in the context of events in Japan (hardness against natural/destructive phenomena)
- NRC responsibility, authority, history and practice of leveraging operating experience to improve plant safety
- Examples of safety improvements to U. S. NPP's growing out of lessons learned from TMI and 9/11/01
- NRC response to events in Japan
    - Support team deployed to Ambassador's office
    - Networking and cooperating with the Federal family
    - Supporting overall U. S. response and support for U. S. citizens in country and the Nation of Japan
    - Supporting NRC information needs for fact based response and for developing domestic strategy potential regulatory response

I ensured Mr. Jansen and Ms. Roth were introduced to and interacted with SRI Jamie Benjamin, RI Alex Garmoe, BC Eric Duncan and PAO,s Viktoria Mitlyng and Prema Chandrathil. I explained the role of the RSLO is to liaison with and support information needs of State, local and Federal counterparts and that OCA will support Mr. Jansen and Congressman Kinzinger's information needs.

Sincerely,

Harral Logaras
U. S. NRC Region III
Regional Government Liaison
630-829-9659

XXXX b6

Link to the *Award Winning* NRC Information Digest http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/v22/sr1350v22.pdf

Link to NRC Fact Sheets and Brochures http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/

Riley (OCA), Timothy

From: Riley (OCA), Timothy
Sent: Friday, March 25, 2011 2:16 PM
To: maryfrances.repko@mail.house.gov; Haynes, Laura (Carper); michal.freedhoff@mail.house.gov; avenel.joseph@mail.house.gov
Cc: Shane, Raeann
Subject: Follow up from 3/24 Call

Apologize for the delay in responding, here are answers to yesterday's information requests:

1.) Two workers were reported to have been hospitalized due to radiation exposure. Have there been any more workers hospitalized, and do we know how they were exposed?
2.) Three workers were reported to have received radiation burns to their feet by spending too much time walking in contaminated water. Do we have any more information on this?

The following information (from IAEA website) addresses these two questions:

> As per the IAEA, three workers at the Fukushima Daiichi nuclear power plant were exposed on 24 March to elevated levels of radiation. The IAEA has received additional information on the incident from the Japanese authorities.
> The three were contracted workers laying cables in the turbine building of the Unit 3 reactor. Two of them were found to have radioactivity on their feet and legs.
> These were washed in the attempt to remove radioactivity, but since there was a possibility of Beta-ray burning of the skin, the two were taken to the Fukushima University Hospital for examination and then transferred to Japan's National Institute of Radiological Sciences for further examination. They are expected to be monitored for around four days.
> It is thought that the workers ignored their dosimeters' alarm believing it to be to be false and continued working with their feet in contaminated water.
> The Nuclear and Industrial Safety Agency (NISA) of Japan instructed TEPCO to review the radiation control system immediately in order to avoid similar incidents in the future.
> As of 24 March, 19:30 Japan time, the number of workers at the Fukushima Daiichi nuclear power plant found to have received more than 100 millisieverts of radiation dose totalled 17 including the three contract workers. The remaining fourteen are TEPCO's employees.

3.)It was reported that the Iodine levels in the Tokyo drinking water went down below allowable limits. Do we know what this is attributable to? Was it due to a shift in wind direction? Did the releases from the plant go down"?

Per the Japanese regulator, through the NRC site team:

> No quantitative cause analysis exists, but decay of iodine itself or reduction in rainfall with iodine, or their combination can be a plausible reason.

4.) What action is the NRC taking regarding licensee plans to walk down their plants to confirm systems, procedures, etc., are in place to deal with natural phenomena? Are the resident inspectors going to accompany the licenses during the walkdowns?

The Temporary Instruction (TI), outlined below, has inspectors verify that the licensees have performed walkdowns. This can done in various ways. For example, the inspector could walkdown the system with the licensee or perform an independent walkdown and compare those results with the licensee's results (or a combination of both). In some cases the inspector may choose to just review the licensee's documentation of findings from the walkdown.

Overview of TI 2515/183, "FOLLOWUP TO THE FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT"

XXXX-3664

March 23, 2011

TI Objectives

- The objective of this TI is a high-level, independent assessment, of the adequacy of actions taken by licensees in response to the Fukushima Daiichi nuclear station fuel damage event.
- The inspection results from this TI will be used to evaluate the industry's readiness for a similar event and to aid in determining whether additional regulatory actions warranted.

TI Focus Areas

1. Assess the licensee's capability to mitigate conditions that result from beyond design basis events (e.g., B.5.b and 10 CFR 50.54(hh)).
2. Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63.
3. Assess the licensee's capability to mitigate internal and external flooding events required by station design.
4. Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site.

TI Inspection Methods

- Use existing inspection procedures and TIs for guidance
- Where applicable, inspectors should credit the baseline inspection program for samples reviewed during this TI assessment.
- Resources: 40 hours per site.

Other Issues

- The TI was issued on March 23, 2011. Each site will complete the inspection by April 29, 2011 and issue a stand-alone report by May 13, 2011.
- An inspection report template is being prepared to assist in documentation.
- The short inspection and documentation timeline could have a significant impact on regional resources.

Riley (OCA), Timothy

From: Shane, Raeann
Sent: Friday, March 25, 2011 1:56 PM
To: Riley (OCA), Timothy
Subject: FW: Emailing: boardfile.htm
Attachments: image001.png; TI Objectives.docx

FYI, not sure if this was attached

From: Droggitis, Spiros
Sent: Friday, March 25, 2011 11:41 AM
To: Shane, Raeann
Subject: Fw: Emailing: boardfile.htm

Can you please take care of these? Thanks

From: Sheron, Brian
To: Droggitis, Spiros; Shane, Raeann
Sent: Fri Mar 25 11:13:30 2011
Subject: FW: Emailing: boardfile.htm

Here is the staff's response to question #4. Can you clean up the format and send it on to the staffers?

From: Ross-Lee, MaryJane
Sent: Friday, March 25, 2011 11:12 AM
To: Sheron, Brian; ET05 Hoc
Subject: FW: Emailing: boardfile.htm

From: Kobetz, Timothy
Sent: Friday, March 25, 2011 7:39 AM
To: McGinty, Tim; LIA06 Hoc; Nelson, Robert
Cc: LIA08 Hoc; PMT09 Hoc; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; Giitter, Joseph; Westreich, Barry; ET05 Hoc; Zimmerman, Jacob; Brown, Frederick
Subject: RE: Emailing: boardfile.htm

Tim and Bob,

#4. The TI (issued March 23, 2011) has inspectors verify that the licensees have performed walkdowns. This can done in various ways. For example the inspector could walkdown the system with the licensee or perform an independent walkdown and compare those results with the licensee's results (or a combination of both). In some cases the inspector may choose to just review the licensee's documentation of findings from the walkdown.

For more information on the TI a one page set of talking points is attached.

Tim

From: McGinty, Tim
Sent: Friday, March 25, 2011 2:18 AM
To: LIA06 Hoc; Nelson, Robert

XXXX-363

Cc: LIA08 Hoc; PMT09 Hoc; McGinty, Tim; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; Giitter, Joseph; Westreich, Barry; Kobetz, Timothy; ET05 Hoc; Zimmerman, Jacob
Subject: FW: Emailing: boardfile.htm

Jake – for the call this evening with the in-country team, we discussed that the NRC-Japan team may be the best source of information to address questions 1 and 2 below, and may also have insights on question 3. Please see what insights we can get from the team so we can pass them along to the line organization (Nelson is the focal point for comms).

For Question 4, I think the best response would come from DIRS on day shift, regarding the information that is in the TI being developed.

Nelson – the midnight shift ET wanted to get this tasker out of the Operations Center and into the line organization. The Protective Measures Team has a number of other higher priorities that we want them to be able to focus on. Can you respond to this email accepting the tasking so I can get it out of the Ops Center task tracker? Thanks, Tim

---

From: McGinty, Tim
Sent: Friday, March 25, 2011 12:47 AM
To: McGinty, Tim
Subject: Emailing: boardfile.htm

From:	OST02 HOC
Sent:	Thursday, March 24, 2011 7:03 PM
To:	ET05 Hoc
Subject:	FW: Congressional call Today

From: HOO Hoc
Sent: Thursday, March 24, 2011 5:46 PM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Congressional call Today

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

From: Sheron, Brian
Sent: Thursday, March 24, 2011 3:40 PM
To: HOO Hoc
Subject: Congressional call Today

I received the following questions from congressional staff which I could not readily answer. Can you please ask the ET, RST and/or the PMT if they have any information that can address these questions?

1.) Two workers were reported to have been hospitalized due to radiation exposure. Have there been any more workers hospitalized, and do we know how they were exposed?

2.) Three workers were reported to have received radiation burns to their feet by spending too much time walking in contaminated water. Do we have any more information on this?

3.) It was reported that the Iodine levels in the Tokyo drinking water went down below allowable limits. Do we know what this is attributable to? Was it due to a shift in wind direction? Did the releases from the plant go down"?

4.) What action is the NRC taking regarding licensee plans to walk down their plants to confirm systems, procedures, etc., are in place to deal with natural phenomena? Are the resident inspectors going to accompany the licenses during the walkdowns?

Thanks.

Riley (OCA), Timothy

From: Powell, Amy
Sent: Friday, March 25, 2011 9:33 AM
To: Rihm, Roger
Cc: Schmidt, Rebecca; Riley (OCA), Timothy; Landau, Mindy; Shane, Raeann
Subject: Re: EPP Testimony for Weds

Thanks Roger - I've cc'ed Raeann Shane who is working with me on this today.

On the 3/29 Senate Energy statement, we will send you what circulates to the Commission, which I hope will be later this am.

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

Sent from my Blackberry

From: Rihm, Roger
To: Powell, Amy
Cc: Schmidt, Rebecca; Riley (OCA), Timothy; Landau, Mindy
Sent: Fri Mar 25 09:29:01 2011
Subject: EPP Testimony for Weds

We've given this a quick once over and asked NSIR for a bit more information (as noted in attached). Mike did not review and just asked us to proceed. I can imagine you may want to tone down some of the description of what went into our Japan 50-mile decision....

Trish Milligan from NSIR is prepared/planning to accompany Mike on Weds. Is that consistent with your views?

[note: there is something odd going on with the formatting of the attached when you make edits that is beyond my technical capabilities to fix permanently]

On the 3/29 testimony, do you have a revision I can use to continue to craft the oral statement to be sure I capture your changes?

XXXX-364

From: LIA02 Hoc
Sent: Friday, March 25, 2011 2:05 PM
To: LIA03 Hoc
Subject: FW: Meeting Notes from meeting with Chairman from Interpreter

---

From: LIA02 Hoc
Sent: Friday, March 25, 2011 2:01 PM
To: Emche, Danielle
Cc: LIA10 Hoc
Subject: Meeting Notes from meeting with Chairman from Interpreter

Danielle,

I am being asked by the current interpreter who is asking for the meeting notes. He says that normally they do not give them out with the permission of the participants, namely the Chairman's office. I told him that it was for us in OIP.

Steve

XXXX-365

Riley (OCA), Timothy

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Sent: Friday, March 25, 2011 9:33 AM
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XXXX-3606

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Tim

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Sent: Friday, March 25, 2011 2:18 AM
To: LIA06 Hoc; Nelson, Robert

XXXX-367

Cc: LIA08 Hoc; PMT09 Hoc; McGinty, Tim; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; Giitter, Joseph; Westreich, Barry; Kobetz, Timothy; ET05 Hoc; Zimmerman, Jacob
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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

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Thanks.

From: LIA02 Hoc
Sent: Saturday, March 26, 2011 8:10 AM
To: OIP Distribution; LIA06 Hoc; LIA06 Hoc; LIA03 Hoc
Subject: From ENAC Website
Attachments: Results Compilation Emergency Response Governmental Decision and Recommendation Rev 7 25 March[1].pdf

FYI

XXXX-368

Governmental Decisions and Recommendations

	Country	Decision taken or Recommendation made	Applicable Date	Applicable Population
Q1: **What has your government recommended with regard to your citizens living in or visiting Japan?**	**Australia**	As a precautionary measure, that Australians within an 80 km zone from the Fukushima nuclear power plant move out of the area. As the situation continues to develop, all Australians in Japan are strongly encouraged to follow the protective measures recommended by the Japanese and Australian Governments. This may include sheltering. Australians returning home from Japan are highly unlikely to be contaminated or exposed to significant radiation and will not require checks for radioactivity. However, if people wish to seek medical advice they should contact their local GP. ARPANSA and the Chief Medical Officer advise that iodine tablets are only required when exposed to substantial radiation doses from radioactive iodine. There is no current need for those returning from Japan or those in Japan outside the exclusion Zone to consider the use of potassium iodide tablets. At the present time, Australia's food standards Regulator, Food Standards Australia New Zealand (FSANZ), considers the risk of Australian consumers being exposed to radionuclides in food imported from Japan to be negligible. Australia does not import fresh produce from Japan. In fact Australia imports very little food from Japan. Imports are limited to a small range of specialty products, for example seaweed-based products, sauces etc. A joint communique for the World Health Organization, the International Atomic Energy Agency, the World Meteorological Organization, the International Maritime Organization and the International Civil Aviation Organization advises that there is no current restriction) on international flight and maritime operations can continue normally into and out of Japan's major airports and sea ports Full text at www.arpansa.gov.au	Last Updated 0900 AEDST (UTC+11) March 19	Various categories - Australians in Japan; Australian Passengers returning from Japan; Medical Practitioners; Food Imports; Advise to Airlines and Shipping
	Austria	Partial travel warning for the north east of Japan. It is also recommended that Austrians should leave this area and in addition the Tokio Province The Austrians in Japan are recommended to strictly follow the instructions of authorities in Japan.	Since 15.03.2011	Travelers; Austrians in Japan
	Belgium	Travel advice for Japan runs as follows: All trips to Japan are advised against till further notice. Belgian citizens whose stay in Japan is not essential are being advised to leave the country. organized consular assistance of Belgian citizens from Japan on a voluntary basis		

	Canada	The Government of Canada is advising against non-essential travel to Japan. An official warning has been issued advising Candians in Japan against all travel within 80 km of the Fukushima Nuclear Power Plant. Recommendation to follow the directions of the Japanese government and local emergency response personnel. Canadians located within 80 km of the plant are advised that they should evacuate this area.	25 March	Canadians in Japan
	Czech Republic	Recommendation of the national regulatory authority (State Office for Nuclear Safety - SONS) and Ministry of foreign affairs (MFA): MFA (www.mz.cz): To travel to north-east parts of the island Honsue is not recommended in particular to the areas up to 80 km from Fukushima NPP. To travel to Tokyo and north – east parts of Japan should be limited only to urgent cases. The Czech citizens living in the affected areas should leave those areas. Czechs living in Japan should not consume the food from the affected areas and should avoid buying the food at local market places. SONS (www.sujb.cz) To travel to other parts of the Asia there is no restriction. The Czech embassy in Tokyo has been provided by iodine tablets, but no other protective means have been delivered. All Czechs in Japan are encouraged to follow and to respect the recommendations of the local Japanese authorities. Czechs returning home from Japan if wish could ask for the whole body measurement. There is a contact to the measuring facility (www.suro.cz) SONS advise that iodine tablets for preventive use are not recommended. There is no current need for those returning from Japan or those in Japan outside the exclusion Zone to consider the use of potassium iodide tablets. At the present time, the Czech Agriculture and Food Inspection Authority (CAFIA) assure the measurement of all from Japan imported food stuff.	Since 15.3.2011	Various categories –Czechs in Japan; Czechs returning from Japan; Food in Japan; Iodine tablets; Food Imports;

		The Czech Republic does not import fresh food from Japan. Only small range of foodstuff and food products is imported to the Czech Republic. Full texts on www.sujb.cz; www.mz.cz; www.suro.cz; http://www.szpi.gov.cz/en		
	Denmark	The Danish Emergency Management Agency, and The National Institute for Radiation Protection together with The Danish Veterinary and Food Administration are following the development of the situation in japan very closely. The Danish Emergency Management Agency in cooperation with The National Institute for Radiation Protection has made an official statement published on the homepages of the Danish Ministry of Foreign Affairs and the Danish Embassy in Japan asking Danish citizens in Japan to stay clear of a 80 km-zone around the Fukushima nuclear power plant. This protective distance also applies to Danish ships within the area. Danes residing in Tokyo and North of Tokyo have been advised to consider leaving the area. As of 16 March the initial recommandation from the Ministry of Foreign Affairs of making only necessary travels to Japan has been changed to not travelling to Japan. All Danish citizens in Japan - including ship crews - have been instructed to follow the local authorities' recommandations. Through The Ministry of Foreign Affairs instructions on safety precautions in case of a radioactive plume and instructions on intake of iodine tablets, if prompted, has been posted on the homepages of the Danish Embassy in Japan. The Ministry of Foreign Affairs on the homepages has posted links to The Danish Embassy in Tokyo and to The Danish Emergency Management Agency's homepage where a FAQ and a daily update on the situation at Fukishima can be found. A Danish assistance team consisting on two persons from The Danish Emergency Management Agency and The National radiation Protection Institute left 17 March for to support the Danish Embassy in Japan at their request. No planes have been specially reserved for transporting Danes out of Japan based on the information from The Danish Embassy in Tokyo saying that all Danes wishing to leave Japan had already done so on ordinary flight. The Danish Veterenary and Food Administration recomend Danish citizens to follow the advice of the local authorities according to food and drink.	Last updated 24. March	Danish citizens in Japan Danes considering travelling to Japan Danish sea vessels

	Finland	Ministry for Foreign Affairs (MFA) urges Finns to withdraw from a radius of 80 km of Fukushima nuclear power plant. MFA recommends avoiding all travelling to the Tokyo-Yokohama area, Tohoku and Kanton area. If there is no mandatory need to stay in these areas, MFA urges considering moving to the safer areas of southern Japan. Unnecessary travelling to southern Japan should be avoided although the safety situation still is good in southern Japan. Iodine tablets have been distributed to Finns in Japan. The intake of the iodine tablets on request of the Finnish authorities.	17 March, 2011	Finns living in or visiting Japan.
	France	Travel to Japan is strongly discouraged. For French living in Tokyo : they are recommended to leave the Tokyo area for the south of Japan or for France. In addition to the air capabilities of Air France, the French authorities have made available two government planes. Travel in the prefectures of Hokkaido, Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Chiba, is strongly discouraged. Recommendation to follow the instructions given by the Japanese authorities in case of announcement of a worsening situation. Regarding the issue of KI, pills were sent last week to the French Embassy in Tokyo and were pre-distributed to our nationals. This doesn't mean that the French authorities recommend the ingestion of stable iodine!!!	Updated on March 21	
	Hungary	HU advises to defer non-essential travel to Japan and avoid all travel to certain areas, especially to Iwate, Miyagi and Fukushima prefectures. Hungarian citizens whose stay in Japan is not essential are being advised to leave the country. We advise Hungarian citizens, in particular families with children, to leave Tokyo (Kanto region) temporarily and move to a more secure part of the country. As a precautionary measure HU nationals are advised to remain outside an 80 km radius from the Fukushima nuclear facility. We are encouraging our citizens to closely follow all instructions from the Japanese authorities and to monitor the continuously updated website of our Embassy. HU citizens currently in Japan have been asked to make themselves known to HU Consular Services in Tokyo and Hamamatsu.		
	Ireland	[DFA] Advise avoiding non-essential travel to Japan, including Tokyo, and do not travel to affected areas in the north-eastern part of the main, Honshu island of Japan. [DFA] Advises against all travel to this area [Fukushima prefecture including 30 km zone]. Given the difficulties arising from the present situation, including potential disruptions to the supply of essential	15 March Food advice added 23 March	Irish citizens considering travelling to Japan and those

		goods and services, [DFA] would encourage Irish citizens to consider leaving the north east of Japan and the Tokyo region. This is particularly the case for people with small children. [DFA = Dept of Foreign Affairs] In light of increased radiation levels found in certain food types in prefectures near the Fukushima Daiichi nuclear plant, the Japanese Government is restricting the sale of certain food types from affected areas. The foods affected include green leafy vegetables, broccoli, parsley and untreated milk although the list is constantly being revised. Irish citizens in Japan are encouraged to check with the Japanese authorities for a full up-to-date list of affected foodstuffs. Link given to list.		living in/currently visiting Japan
	Italy	The Italian Embassy in Japan strongly recommends to the fellow countrymen to turn away from the four prefectures affected by the tsunami, from the prefectures to the north of the capital and from Tokyo itself	March 15, 2011	Italian fellow in Japan
	Luxembourg	If presence is not necessary and if feasible, to move to the southern parts of Japan. Follow advices of Japanese authorities	14/03/2011	50 persons
	Poland	Ministry of Foreign Affairs has recommended not to travel to Japan neither for touristic nor other not urgent reasons. http://www.msz.gov.pl/Sytuacja,kryzysowa,w,Japonii,%E2%80%93%20%0b,ostrzezenie,Ministerstwa,Spraw,Zagranicznych,41951.html (in Polish) Polish citizens staying in Japan Polish citizens have been advised to leave north-eastern area of Honshu island due to information on possible radioactive contamination. Polish citizens have been urged to follow the instructions of the local authorities and information given on the official website of Polish embassy in Tokyo. Special emergency phone-lines for Polish citizens staying in Japan and their relatives have been established by Ministry of Foreign Affairs in order to facilitate public communication. Information on current situation in nuclear power plants in Japan and some recommendations for public are also available on www.paa.gov.pl , http://www.gis.gov.pl/?news=238 (in Polish)	24 March	
	Portugal	Recommendation was made to Portuguese citizens to leave Tokyo and "go south". No indications/recommendation to leave Japan were adopted. The Portuguese Embassy remains operational in Tokyo ITN is advising the staff of the Portuguese Embassy (electronically, by phone, email) on radiation-related matters The Portuguese Ministry for Foreign Affairs has issued advice against non essential travels to Japan and those	17-18 March	Portuguese citizens living in Japan Staff at the

		Portuguese citizens whose stay in Japan is not essential, to temporarily leave the country or move to the south of Japan, especially families with children or pregnant women. (available at www. secomunidades.pt) The Portuguese Ministry for Foreign Affairs has been in straight and permanent contact with the Portuguese embassy in Japan in order to guarantee that all relevant preventive and protection measures are taken in due time The Directorate General for Health has recommended that that the Portuguese citizens which cannot leave Japan should avoid the affected areas and follow the instructions of Japanese authorities (available at www.dgs.pt). The Portuguese National Authority for Civil Protection has convened regularly the National Commission for Radiological Emergencies in order to assess the situation and to coordinate the measures taken by the Portuguese authorities	24 March	Portuguese Embassy
	Slovakia	It has been recommended to leave the affected region, if possible go to the south of Japan or to return home. For those who will stay in potentially affected regions it was recommended to follow the recommendations of local crisis management and to obtain or to buy Kalium-iodine tablets, but to use them only in the case that it is recommended by the crisis management.	Published on the web page of the Public Health Authority (PHA) and in the mass-media on 17 March 2011.	Slovak citizens living or visiting Japan, probably few tents.
	Slovenia	Slovenian citizens living in Japan were recommended to follow the instructions issued by local authorities. They were warned that in case of bad weather condition the radioactive contamination might spread to central part of Honshu island including Tokyo region. People were recommended to take this information in to account when planning their stay in Japan. All travels to Japan were dissuaded. If a trip can not be postponed extra caution and follow up from other sources of information was recommended.	March 15, 2011	Slovenian citizens in Japan and Slovenian citizens planning to visit Japan.
	Spain	The Spanish Government has decided to repatriate all the Spanish citiziens that wish to return to Spain by plane. Aircrafts are available for flights from Japan to Spain. Passengers from these flights will be	ECURIE Info msg	

		monitored. The control of foodstuffs from Japan is being conducted by the Ministry of Health. For those citizens who wish to remain in Japan, the Spanish Embassy has recommended to follow the advice by the Japanese Government.	18/03/2011 - 14:00 UTC	
	Sweden	It is recommended that Swedish residents within 80 kilometres of the Fukushima reactors evacuate. Also, it is currently being planed by the Swedish government to offer to all Swedish citizens in Japan transport back to Sweden.	2011-03-16	
		It is recommended that Swedish residents within 80 kilometres of the Fukushima reactors evacuate. Also, it is currently being planed by the Swedish government to offer to all Swedish citizens in Japan transport back to Sweden.	2011-03-19 18:30 UTC time	
	Switzerland	The Foreign Ministry advises not to travel to the north-east of Japan and to the prefectures of Nagano and Niigata. The Foreign Ministry advises not to travel to Japan, neither for touristic nor other not urgent reasons. For Swiss citizens staying in Japan: The Foreign Ministry recommends all Swiss citizens staying in the affected area in the north-east of Japan and within the wider area of Tokyo/Yokohama, should temporary leave the region if safely possible, if their presence is not necessary. Swiss citizens are urged to follow the instructions of the local authorities.	Immediately	Swiss citizens living or staying in Japan Swiss citizens intending to travel to Japan
	United Kingdom	Advising UK nationals withing 80km of the Fukushima Daiichi Nuclear Power Plant to evacuate the area		
	United States	US citizens living within 50 miles (80 km) of the Fukushima Daiichi Nuclear Power Plant have been adviced to evacuate the area or take shelter indoors if evacutation is not practical State Department has urged US citizens to defer non-essential travel to Japan at this time Voluntary departure of eligble family members of USG personnel in Japan has been authorized State Department message: http://travel.state.gov/travel/cis_pa_tw/tw/tw_5398.html		

U.S. Embassy
Tokyo, Japan
March 16, 2011
Statement by U.S. Ambassador John V. Roos

Emergency Response Governmental Decision and Recommendations Information Exchange

The United States Nuclear Regulatory Commission (NRC), the Department of Energy and other technical experts in the U.S. Government have reviewed the scientific and technical information they have collected from assets in country, as well as what the Government of Japan has disseminated, in response to the deteriorating situation at the Fukushima Nuclear Power Plant. Consistent with the NRC guidelines that apply to such a situation in the United States, we are recommending, as a precaution, that American citizens who live within 50 miles (80 kilometers) of the Fukushima Nuclear Power Plant evacuate the area or to take shelter indoors if safe evacuation is not practical.

We want to underscore that there are numerous factors in the aftermath of the earthquake and Tsunami, including weather, wind direction and speed, and the nature of the reactor problem that affect the risk of radioactive contamination within this 50 mile (80 km) radius or the possibility of lower-level radioactive materials reaching greater distances.

The U.S. Embassy will continue to update American citizens as the situation develops. U.S. citizens in need of emergency assistance should send an e-mail to JapanEmergencyUSC@state.gov with detailed information about their location and contact information, and monitor the U.S. Department of State website at travel.state.gov.

The United States is continuing to do everything in its power to help Japan and American citizens who were there at the time of these tragic events. To support our citizens there, the Embassy is working around the clock, we have our consular services available 24 hours a day to determine the whereabouts and well-being of all U.S. citizens in Japan and we have offered our Japanese friends includes disaster response experts, search and rescue teams, technical advisers with nuclear expertise and logistical support from the United States military.

	Country	Decision taken or Recommendation made	Applicable Date	Applicable Population
Q2: **What has your government recommended with respect to the monitoring of passengers returning, by air, from Japan?**	**Austria**	No recommendations by the Austrian government. Austrian Airlines organized contamination measurements for flights from Tokio to Vienna	Since 16.03.2011	travelers
	Belgium	Possibility for screening of the thyroid gland in Belgium on a voluntary basis for Belgian citizens planning to return, returning or returned from Japan If proven necessary from the voluntary screening, a total body count can be proceeded to.		
	Canada	There is no official statement on this issue at this time. Passengers arriving from Japan are not being screened	Mar 23 2011	Air passengers arriving from Japan
	Czech Republic	Monitoring of food and foodstuff imported from Japan is based on EC recommendation, and performed by the Czech Agriculture and Food Inspection Authority and State Veterinary Administration. There is only a small range of the food/foodstuff imported from Japan. http://www.szpi.gov.cz/en	17.03.2011	
	Denmark	At present it is not recommended that passengers arriving from japan are monitored. Depending on the development of the situation, this recommendation may be changed.	Last updated 24. March	Passengers arriving from Japan
	Finland	see point Q5 below	25 March	
	France	Notice issued from the French Foreign Ministry (http://www.diplomatie.gouv.fr) to passengers coming from Japan - Contact point to know more about radiation exposure from nuclear facilities - Contact point to know about relatives in Japan - A questionnaire is available for those French people who where in Japanese territory since 11 March so that they can be contacted if needed. Questionnaire available at www.invs.sante.fr People arriving from an area located up to 60 km from the Fukushima NPP are proposed to have a whole body counting at the IRSN facilities to check the absence/presence of internal contamination. People arriving from Tokyo are not proposed to have this in-vivo measurement. The situation might evolve; it is still under discussion within the French government.	March 21	

	Hungary	No direct flights from Japan to Budapest, however, consular information is continuously provided on commercial flight options and flights operated by other Member States. According to our experience, citizens returning from Japan do not contact MFA or the HU Embassy in Tokyo anymore. Nevertheless, they can obtain updated information on necessary health safety measures on several Hungarian official websites. No monitoring station has been installed at the airports in Hungary.		
	Ireland	No direct flights from Ireland to Japan.		
	Italy	No specific recommendations so far, according to my knowledge		
	Luxembourg	No recommendation		
	Poland	Please note that airports in Poland are equipped in radiometric devices. Monitoring of passengers is carried out on routine basis. There is no need to recommend additional monitoring of passengers returning by air from Japan or intake iodine potassium pills on returning to Poland (www.paa.gov.pl) (in Polish)	24 March	
	Slovakia	Information on the web page of the Public Health Authority (PHA) and in the mass-media: Recommendation to visit the PHA for screening measurements of the body surface contamination, internal contamination and for control of their articles and foodstuffs originated from Japan.	Published on 17 March 2011 for person coming from Japan since 14 March 2011	For those who are coming from Japan and who stayed or visited the affected region. Probably few tents.
	Slovenia	No monitoring of passengers was introduced.		
	Spain	There are not direct flights from Japan to Spain. Passengers from Japan have to make scale in Europea airports as Paris, London, Amsterdam.. As no provissions to check all fligths from EU were considered , a general protocol was agreed between CSN and Health Ministry. A phone number and an e-mail from Health Ministry are available for all people coming from Japan to ask for advice. If any circonstance that warrants the adoption of aditional measures are identified, the Ministry	24 March	

		would get in touch with that person and carry out aditional checks or other measures. A questionaire has been developed to determine wether actions (whole body counting..) need to be taken for each person contacting health Ministry. Selection criteria include location in Japan and information provided or meassures reccomended by Japanese authorities at those locations. A direct flight has been sent to Bancock by Spanish Government to return people from Japan. Radiological checks using portable detectors have been perormed for all passengers. Baggage and plane (cabin and cargo) have also been checked. All passengers, Baggage and plane resulted free from radioactive contamination. For all people asking advice from Health Ministry after return form Japan some Radiation Protection recommendations are provided in written. Those include washing up of all clothes, take a long shower, throw away any food, wash or rub off any good brougth from Japan.		
	Sweden	Passengers from Japan who have been in the area within 80 kilometers from the Fukushima plant can, if requested, be offered monitoring through their ordinary caregivers.	2011-03-17	
	Switzerland	Reception centre for returning people who were staying in the evacuation zones Screening of crew members in Tokyo and Hong Kong Screening of cargo in Tokyo and in Zurich Screening of cabbins Screening of tires	Since 16.3. Updated 23 March	People arriving in Switzerland who were staying in the evacuation zones
	Portugal	No monitoring is in place. However, representatives from the General Directorate of Health, ITN, and the emergency-related agencies provide at the Lisbon airport information upon arrival for passengers arriving from Japan Clarification of the radiological situation, upon request, for people returning from Japan	Week 14-18 March 23 March	Passengers returning from Japan
	United Kingdom	No officials statement to date Contingency plans for monitoring people at airports are being developed	March 19	
	United States	Radiation detection devices are routinely used by Customs and Border Protection to screen passengers Public messages and health alerts for travelers are developed and being cleared for release.	March 21	

	Country	Decision taken or Recommendation made	Applicable Date	Applicable Population
Q3: **What has your government recommended with respect to the importing of food or goods from Japan?**	**Austria**	Monitoring of food- and feedstuff from Japan based on EC recommendation.	Since 15.03.2011	-----
	Canada	Enhanced import controls on milk products, fruits, and vegetables from areas of Japan affected by the ongoing nuclear crisis (Japanese prefectures of Fukushima, Gunma, Ibaraki, and Tochigi) are being implemented. These products will not be allowed entry into Canada without acceptable documentation verifying their safety. Measures will be adjusted, as warranted	25 Marach	Canadians in Canada
	Czech Republic	No direct commercial flights from Japan to the Czech republic. Approx. 100 Czech citizens have been transferred from Japan back by air force (after arrival all passengers and airplane were monitored and no contamination was estimated) Currently - all who wish could ask for whole body measurement after arrival from Japan		
	Denmark	There are not yet any restrictions on food from Japan to Denmark Denmark is ready to enforce restrictions if it will be necessary. No food has been imported to Denmark since the accident at the nuclear power plant. Food in Denmark imported from Japan is safe to eat, as it is imported before the earthquake and the tsunami and before the accident at the nuclear power plant.	Last update 24 march	Danish citizens living in Denmark
	Finland	Finland follows the advice given by the European Commission; EC has advised EU governments to check levels of radioactivity in food and goods imported from Japan. Authorities have advised the companies how to measure goods and what are the further activities, if needed.	16 March, 2011 (EC)	People living in Finland.
	France	This point is still under discussion in the French government	March 21	

	Hungary	No decision is taken yet, waiting for decisions at the European Union level. All consignments of food from Japan dispatched after March 11, 2011 are to be samlped and radioanalitically inspected at the Border Inspection Points and in the course of the domestic official controls in order to collect information on the radiological status of the imported foodstuffs. At the BIPs we are currently sampling fishery products (food and feed) originated from Asia and the Pacific area and performing radioanalitical inspection on them.	23 March	
	Ireland	Considering situation in light of EC (DG SANCO) recommendation to to the effect that Member States should analyse food and feed from Japan. Food Safety Authority of Ireland (FSAI) checking with Customs & Excise re direct imports to Ireland and liaising with FSA (UK). FSAI/DAFF/RPII to discuss further in the next few days. (DAFF = Dept of Agriculture, Fisheries and Food; RPII = Radiological Protection Institute of Ireland) Notingthat Japan is only authorised to export four products of animal origin to the EU and no establishments in the Fukushima region are authorised to export products to the EU and that Ireland has very few direct imports from Japan. FSAI have stated that do not believe that monitoring for radioactivity in imports is warranted at this time. Nevertheless, FSAI is working with other agencies (including RPII and Customs & Excise) to identify any products or ingredients that could be involved, so that if necessary, targeted monitoring would be introduced. Will implement European Commission regulation once adopted (expected 25 March) - proposed to harmonise monitoring and testing of food imports from Japan across EU. The proposal is likely to require a pre-export check to be carried out by Japanese authorities, combined with random controls at the points of import within the EU. Further details will placed on FSAI website tomorrow (24 March). (FSAI = Food Safety Authority of Ireland; RPII = Radiological Protection Institute of Ireland)	Updated 23 March	
	Italy	Italian Health Minister has ordered the ban on imports of food from Japan (fish and worked vegetables) dated after March 11, 2011	March 16, 2011	Italian
	LU	No direct importations	17/03/2011	
	Poland	No special recommendations or measures so far. Routine monitoring of foodstuffs and feedingstuff is based on EC recommendation.	24 March	
	Slovakia	It is recommended to control the foodstuffs imported from Japan by competent national authorities as required by EC.	Published on the web	Citizens of Slovakia.

			page of the Public Health Authority (PHA) and in the mass-media on 17 March 2011.	
	Slovenia	Additional control of foodstuffs imported from Japan is introduced in agreement with common EU approach.		
	Spain	Health authorities have put in place radiological controls for all food imported from japan both by plane and boat. For other goods, specially toys, clothes and shoes, radiological controls are also anticipated using both gate detectors (at some seaports) and portable detectors (seaports and airports).	23 March	
	Sweden	Additional control of foodstuffs imported from Japan is introduced in agreement with common EU approach.	22/03/2011	
	Switzerland	Foodstuffs *Spot Checks of imported goods* *Feeding Stuffs* Spot Checks of imported goods	 *25.03.11* 25.03.11	
	Portugal	No decision is taken yet, waiting decisions at the European Union level. Most likely the recommendation from DG-SANCO (RASFF - to analyse the level of radioactivity in feed and food from plant or animal origin (mainly fishery products) imported from today from Japan) will be adopted soon. Agricultural and veterinary authorities adopted measures to control of foodstuff and feedstuff coming from Japan	Next week ? 23 March	
	United Kingdom	No additional measures, Criteria being used by Japan are at least as restrictive as EU criteria	March 19	
	United States	Japan has halted all export from affected region Based on current information there is no risk to the US food supply Food & Drug Administration's is flagging all imports of FDA regulated products from Japan and is	March 20	

		paying special attention to shipments from companies in the affected area US Custom & Border Patrol routinely use radiation detection equipment to screen food imports, cargo and travellers FDA has posted fact sheet on food and medical goods importation from Japan: http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm247403.htm New restrictions on food arriving in the US coming from Fukushima, Gunma, Ibaraki, and Tochigi in Japan issued by the US Food and Drug Administration http://www.accessdata.fda.gov/cms_ia/importalert_621.html	24 March	

	Country	Decision taken or Recommendation made	Applicable Date	Applicable Population
Q4: **What are your policies or plans with respect to KI distribution to nationals in Japan?**	**Belgium**	Iodine tablets are put at the disposal of the Belgian embassy in Japan, the intake of which only happens at the advice of the Japanese authorities.		
	Denmark	As of 20 March Iodine tablets are put at the disposal of the Danish Embassy in Japan. Intake of iodine tablets should only be initiated at the advice of the Japanese authorities. Danish citizens at present residing in Japan may recieve the tablets upon request to the embassy. A special guide on how to administer iodine tablet including special precautions for children, pregnant woman etc. is supplied with the iodine tablets. The National Institute for Radiation Protection is keeping a close watch in the dose rate development especially within the Fukushima and Tokyo area and The Danish Emergency Management Agency are frequently updating the prognosis for a possible widespread radiation using dose rate assimilations in the prognosis model. At present, it is recommended not to take the iodine tablets unless recommended by the local authorities.	Last update 24. March	Danish citizens in Japan

	France	KI pills are being provided to French nationals in Japan They are being advised not to take KI and instead to follow the advice of Japanese authorities	March 21	
		Possibility to get iodine tablets at the French embassy (although information is given that Japanese authorities will proceed if needed to distribute iodine tablets to people) Information about the intake of iodine tablets and other recommendations for French citizens in Japan is available at: http://www.diplomatie.gouv.fr/fr/IMG/pdf/Messages_pour_la_communaute_francaise_au_Japon.pdf		
	Germany	German embassay has KI tablets Current policy is not to distribute	March 21	
	Hungary	Iodine tablets have been sent to the Embassy, their distribution starts as soon as authorities recommend it. Any further decisions are to be taken based on constantly received and evaluated new information.	23 march	
	Japan	KI has been distributed to the public	March 21	
	United Kingdom	Distributing KI to nationals in Japan with priority for children and pregnant or breast-feeding women Instructed not take KI unless advised to by Japanese authorities or UK government	March 20	
	United States	US is making KI available to US government personnel and dependents in Japan as a precautionary measure Instructions are not to consume KI unless advised by US government Statement from State Department: *http://travel.state.gov/travel/cis_pa_tw/tw/tw_5398.html*	March 21	

Activation of a call center for information of the	**Austria**	Information for concerned public	Since 12.03.2011	Persons concerned
	Canada	Call centre activated	March 18	Canadian public

public	**Czech Republic**	Information available on web sites: www.sujb.cz www.suro.cz www.szpi.cz www.mz.cz Radiation protection issues – call center - during working hours (SÚJB), media, news		
	Denmark	As per 16 March a hotline at The Danish Emergency Management Agency was established. The hotline is open for calls during the day time all week. The Danish Emergency Manage Agency has established a special homepage concerning the situation in Japan. This includes a FAQ with Q&A´s continuously updated by the Danish Emergency Management Agency in cooperation with The National institute for Radiation Protection and The Danish Veterinary and Food Administration The media coverage is frequent with updates from The Danish Emergency Management Agency and The National Institute for Radiation Protection. A citizen's meeting using Skype broadcast from The Danish Embassy in Japan has taken place with the possibility for the Danish citizens in Japans to communicate directly with experts from the Danish Emergency Management Agency and The National Institute for Radiation Protection.	Last update 24. March	Danes just arrived from Japan or with friends and relatives staying in Japan
	Ireland	Information available on www.rpii.ie, www.environ.ie, www.fsai.ie, www.emergencyplanning.ie, www.met.ie, www. [all agencies coordinating information provided] Radiological Protection Institute has been taking calls from public; alternate number provided on answering machine for calls during weekend and national holiday [17 March] Frequent media coverage with interviews of RPII staff, including programme for children's new television programme.	12 March	Public and media
	Portugal	Phone line available for clarifications at "Linha Saúde 24" Issue of informative document for the population (available at www.dgs.pt) Issue of regularly updated information of the radiological situation in Japan (available at www.apambiente.pt).	*23 March*	

Monitoring	Country	Decision taken or Recommendation made	*Applicable Date*	Applicable Population
	Denmark	Special attention is given to monitoring stations in Greenland and Denmark including air filter measurements for which the frequency has been increased. At present, no radionuclides attributed to the Fukushima nuclear power plant or other nuclear power plants has been observed.	last update 24. March	Danish and foreign authorities
	Ireland	Increased frequency of monitoring of air (filter and charcoal cartridge), rainwater and milk – data being uploaded on RPII website once checked. Being done as reassurance for public and Irish dairy industry. Plan to share with ECURIE and IEC if markers for plume detected. Continuous gamma dose rate monitoring ongoing and data available directly on RPII website.	21 March	
	Switzerland	Special attention to the high volume sampler measurements *Measurement of additional air filters and precipitation samples* *Collection and measurements of high altitude air samples*	14.03.11 21.03.11 23.03.11	

	Country	Decision taken or Recommendation made	Applicable Date	Applicable Population
Q5: **Have you established any recommendations regarding screening of passengers, baggage and transport arriving from Japan in terms of:** • **Screening of passengers and crew** • **Screening of baggage and cargo** • **Screening of cabins (on**	**Australia**	Australia has had advice and updating that advice as time changes since March 15. These were updated 6 hourly until March 23, now the update cycle is 12 hourly. • Screening of passengers and crew It is not considered necessary to introduce any radiation screening measures passengers arriving from Japan, at this point in time. • Screening of baggage and cargo It is not considered necessary to introduce any radiation screening measures for mail, sea or air cargo arriving from Japan, at this point in time. (food is different) • Screening of cabins (on airplane or on ships) Not required. • Screening of outer surfaces (of airplanes or of ships)	23 March	

airplane or on ships) • **Screening of outer surfaces (of airplanes or of ships)** **If you have established such recommendations, what are they, and what is their technical basis?**		Not required		
	Czech Republic	• Screening of passengers and crew no (but who is willing - may ask for whole body measurement after arrival for Japan, contact available on web site) • Screening of baggage and cargo no • Screening of cabins (on airplane or on ships) no (there are not direct flights form Japan) • Screening of outer surfaces (of airplanes or of ships) No	25 March	
	Belgium	There are no direct flights between Japan and Belgium. Message to custom officers, the risk of cross contamination by manipulating luggage's or being in contact with air passengers or crew is very limited. There are advise to carefully wash their hands before eating, smoking. For sea travel it takes 30 days between there and here and therefore no actions in the next three weeks.	23 March	
	Denmark	Screening of passengers and crew is at present not recommended Screening of bagage and cargo is at present not recommended. Screening of airplanes is at present not recommended. The National Institute for Radiation Protection has on request from an airplane company screened filters from a plane arriving from japan. Instructions for vessels operating in the area along the coast of Japan has been issued. No sreening has been recommended at present.	Last update 24. March	Passengers arriving from Japan Planes arriving from Japan Danish vessels in Japan
	Finland	In addition to normal procedure in Finland, special instructions have been given to customs and traffic authorities, Helsinki-Vantaa airport and Finnair regarding screening of passengers, baggage, cargo and airplanes coming from Japan.	18 March, 2011	Passengers returning by air from Japan.

	Germany	As of today there is a legal reqirement in Germany to screen outer surfaces of airplanes with an accepted level of 1 kBq/cm2 as a constraint which correponds to a doese constraint of 5 Microsievert/h in 1 m distance. This regulation is valid for 2 months. It has been implemented on a voluntary basis last week and no levels above the constraint have ever been observed. But the negative results observed are important for reassurance. I am aware of one case study last week in a plane coming from Tokio where the cabin and the personnel have been screened - no contamination has been observed. In the air filter of one plane traces of I-131 have been obeserved. Our Government offers on a voluntary basis personal screening for people returning from the area near the reactor site. We have detected traces of the full spectrum of radionuclides as external contamination (sweater, pullover, etc.) and as internal contamination (whole body, iodines in the thyriod). The doses derived from the measured concentrations vary between 20 nSv and 100 microSv.	23 March	
	Switzerland	Have you established any recommendations regarding screening of passengers, baggage and transport arriving from Japan in terms of: • Screening of passengers and crew Passengers NO / crew YES • Screening of baggage and cargo Baggage NO /cargo YES (in Tokyo and in Zurich) • Screening of cabins (on airplane or on ships) YES • Screening of outer surfaces (of airplanes or of ships) YES (Filters and tires) Action taken mainly as a precautionary and reassurance measure as long as no elevated values are detected.	23 March	
	Sweden	So far no special screening recommendations have been issued other than the possibity for passengers from Japan who have been in the area within 80 kilometers from the Fukushima plant can, if requested, be offered monitoring through their ordinary caregivers.	24 March	

General Question:

It is likely that, in the coming weeks, there will be discussion of the collective dose received by the Japanese population. I also feel that it is likely that there will be, in the press, discussion of the number of projected cancer deaths, using the collective dose and the 5%/Sv risk factor. Given this situation, I feel that it would be useful for the RP community represented by the CRPPH to consider how such claims could be addressed.

- Do you agree that we could address this issue?
- If so, what would be your response should you be asked about an estimate of projected deaths based on a collective dose estimate?

Austria

- Do you agree that we could address this issue? YES
- If so, what would be your response should you be asked about an estimate of projected deaths based on a collective dose estimate?

Canada

- Further thought and discussion would be required, but there is some concern that collective dose estimate is not the proper way to estimate projected death.

Italy

- Yes
- I'd need some more time to formulate this answer. I think the right way is that proposed by the Chernobyl forum for that accident

Luxembourg

- In respect for what is at stake in Japan, we are not willing to enter such a discussion right now. If really a need, it should be postponed to a more adequate date.

Slovakia

- Yes.
- The individual doses will be probably very low, but the number of exposed persons will be high. Using a collective dose in this case is not the preferred way how to calculate or assess the number of projected cancer deaths mainly for community information purposes.

Slovenia

- It should be stressed that 5%/Sv refers to cancer incidence risk and not to cancer deaths risk.

Sweden

- Concerning the General Question we prefer not to address that right now, but are all in favour of co-ordination in these topics.

Portugal

- Do you agree that we could address this issue? **YES**
- If so, what would be your response should you be asked about an estimate of projected deaths based on a collective dose estimate? **As you are well aware, the correctness of using "collective dose" for these purposes is disputed by some experts... but in my very personal opinion, the number obtained should be used as an estimation – better than no number !**

Denmark

- No.

Emergency Response Governmental Decision and Recommendations Information Exchange

- This is believed to be the task and responsibility of the Japanese authorities.

Greenwood, Carol

From: Gibson, Kathy
Sent: Saturday, March 26, 2011 1:41 PM
To: Tinkler, Charles
Subject: Fw: Sharing info. with DOE Science Council

Not sure if I sent this to you.

----- Original Message -----
From: Lee, Richard
To: Gibson, Kathy
Sent: Sat Mar 26 09:09:19 2011
Subject: Sharing info. with DOE Science Council

Dear Kathy:

Sud and I had asked Mike Corradini to perform an assessment on Fuel coolant interaction analysis using the NRC TEXAS code. The base calculation (which Randy, Dana, Mike Salay, Sud and I) think could be perhaps the worst case scenario of melt (with stainless steel) coming out of one control rod drive (CRD) hole into a saturated pool of water about 6-7ft from the melt expelling from the CRD hole. The load calculated is not showing a problem in breaching the primary containment structure (for e.g, the liner - assuming that it is still in reasonable condition). Additional parametric studies are ongoing. I have provided the preliminary assessment to Mike Salay and Hossein already.

This is the case where the water did not completed flooded the reactor cavity. If the cavity is completely flooded, the FCI will not be an issue. I think, flooding the reactor cavity is being considered. I know MCCI analysis been carried out by Mitch Farmer (ANL) - which is a DOE directed analysis.

Your advise (and Brian Sheron one if you need to consult with him) is sought for us to share this FCI analysis with the Science Council through John Kelly This will give us some visibility on the pro-active analyses that are on-going at different labs directed by DOE.

Richard

XXXX-319

From: ET07 Hoc
Sent: Saturday, March 26, 2011 1:11 PM
To: FOIA Response.hoc Resource
Subject: FW: CHAIRMAN JACZKO's request: Fukushima reactor 3
Attachments: image001.gif

From: OST01 HOC
Sent: Saturday, March 26, 2011 1:10 PM
To: RST01 Hoc; RST01B Hoc; ET07 Hoc; LIA06 Hoc; LIA08 Hoc; LIA03 Hoc; LIA02 Hoc
Subject: FW: CHAIRMAN JACZKO's request: Fukushima reactor 3

Please see Chairman Jaczko's request below.

Please forward to appropriate personnel, if applicable.

Thanks.
OST01

From: HOO Hoc
Sent: Saturday, March 26, 2011 12:59 PM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Fukushima reactor 3

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: (301) 816-5148
Fax: (301) 816-5151
Email: hoo.hoc@nrc.gov
Secure Email: hoo@nrc.sgov.gov

From: Jaczko, Gregory
Sent: Saturday, March 26, 2011 12:59 PM
To: 'jacques.repussard@irsn.fr'; HOO Hoc; Dyer, Jim
Subject: Re: Fukushima reactor 3

Please forward to the reactor safety team and liaison team to get back with jacques with anything we know.

From: REPUSSARD Jacques <jacques.repussard@irsn.fr>
To: Jaczko, Gregory

XXXX-370

Sent: Sat Mar 26 12:54:24 2011
Subject: Fukushima reactor 3

Dear Greg,

We are trying to work out the most likely scenario of what happened to reactor 3 from the moment of the hydrogen explosion until now, when we understand that there is no pressure in either the confinement or the vessel.
I wondered whether NRC had any close aerial photographs of the top of the confinement, normally constituted of a metallic "lid" bolted to the side of the containment below the biological protection that was presumably destroyed in the explosion, which may provide a hint to the fate of the confinement? We have good satellite photos, but unfortunately not precise enough to such detail.
Thanks in advance for your help. Naturally, we are ready to exchange informally with your experts on these scenarios if you wish to do so.
Friendly regards,

Jacques Repussard

From: ET05 Hoc
Sent: Saturday, March 26, 2011 12:44 AM
To: McGinty, Tim
Subject: FW: svtc this afternoon

From: Zimmerman, Roy
Sent: Friday, March 25, 2011 10:36 PM
To: ET05 Hoc
Subject: FW: svtc this afternoon

From: Jaczko, Gregory
Sent: Friday, March 25, 2011 9:01 PM
To: Zimmerman, Roy
Subject: Re: svtc this afternoon

Thanks roy

From: Zimmerman, Roy
To: Jaczko, Gregory; Borchardt, Bill; Weber, Michael; Virgilio, Martin
Sent: Fri Mar 25 20:27:12 2011
Subject: svtc this afternoon

Notes from SVTC call 3/25/11 at 1600:

Questions were raised on whether NRC understands the trajectory and prognosis for the Fukushima Daiichi site. I informed the participants that this is a very dynamic situation which has been filled with vacillating encouraging and discouraging news. I provided the latest status of the units and indicated that although communications have improved with our in-country team, there remains difficulty in ensuring factual, prompt information to assist in making informed decision –making.

HHS reported they have 1 million bottles of liquid KI to assist the Japanese, if requested. I indicated that INPO has access to another million tablets if requested.

PACCOM indicated that one freshwater barge is underway to the site.

DOE was asked whether Tokyo has the potential to exceed the 2R/yr PAG. DOE indicated that it is unlikely.

Considerable discussion about "bookend" bounding scenarios…less and more conservative. DOE to provide Admiral Ross both bookends as a "hold close".
DOE indicated that the local area affects appear to be much more locale specific, with PAGs exceeded only I 20 km range.

Bookend scenarios will only be revised based on changes on the ground which significantly affect the modeling.

XXXX-371.

Steve Aeoki (DOE) indicated that there are too many opinions that factor into agreeing on model decisions and prefers to make decisions based on what's happening on the ground.

PACOM focused on considering needs to move US citizens and military depending if situation on the ground deteriorates. They are trying to get down to a 5 day prep time to move all people, from what is currently 6-9 days. PACOM wishes to stay very close to NRC analyses in order to get early warning to support their possible need to move people from harm's way. About 95K people could potentially be involved in a military move. PACCOM requests as early warning of impending move as possible. I told them NRC would strive to meet their needs for relocation decisions.

Japanese are hoarding water and govt wants to be able to say that there will be available water. Coca Cola and Costo have offered donations and at least some of the donation has been accepted by Japan.

Questions answered included: if equipment goes to Japan and becomes contaminated, it if was clean coming in –country, Japan will be responsible.

OSTP is working on thresholds for making critical decisions should the situation deteriorate.

Continues to be a need for data for analysis for predicting plume in US

Next svtc is Wednesday at 8:00am EST

Riley (OCA), Timothy

From: Joseph, Avenel [Avenel.Joseph@mail.house.gov]
Sent: Monday, March 28, 2011 2:49 PM
To: Riley (OCA), Timothy
Cc: Droggitis, Spiros
Subject: RE: NRC Daily calls

Thanks.

Avenel Joseph, M.S., Ph.D.
Office of Congressman Edward J. Markey
2108 Rayburn House Office Building
202-225-2836

From: Riley (OCA), Timothy [mailto:Timothy.RileyOCA@nrc.gov]
Sent: Monday, March 28, 2011 2:47 PM
To: Joseph, Avenel
Cc: Droggitis, Spiros
Subject: NRC Daily calls

Avenel,
You wrote to Spiros Droggitis asking about the daily calls we had been offering re: updates on Fukushima. We are not scheduling any regularly occurring calls at this time, but will announce calls if warranted. We're responding to information requests as best we can, but with limited resources.
NRC senior executives will be appearing at four hearings this week, I hope that their testimony will be of interest to you:
Tuesday, March 29, 10:00 am,– Senate Energy and Natural Resources Committee
366 Dirksen Senate Office Building
Mr. Bill Borchardt: **Update on Fukushima**

Wednesday, March 30, 10:00 am, House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management
2253 Rayburn House Office Building
Mr. Mike Weber: **Emergency Management Programs**

Wednesday, March 30, 10:00 am, Senate Appropriations Energy and Water Subcommittee
138 Dirksen Senate Office Building
Chairman Jaczko: **Review of Nuclear Safety**

Thursday, March 31, 10:00 am, House Appropriations Energy and Water Subcommittee
2362B Rayburn House Office Building
Chairman Jaczko

Timothy Riley
Congressional Affairs Officer
U. S. Nuclear Regulatory Commission
Office of Congressional Affairs
Phone: 301-415-8492

Riley (OCA), Timothy

From: Droggitis, Spiros
Sent: Monday, March 28, 2011 3:51 PM
To: Freedhoff, Michal
Cc: Riley (OCA), Timothy
Subject: RE: [LIKELY_SPAM]Daily Plant Status Report - 3/26/2011

Michal: Here's what I got back from the technical folks at the Operations Center on your question on the suspected recirculation pump seal failure:

Recirculation pumps, located in the drywell, may have failed seals. Seal failure creates a pathway for radioactive reactor coolant system water to travel from the reactor to the primary containment structure.

Hope this helps. Thanks, Spiros

From: Freedhoff, Michal [mailto:Michal.Freedhoff@mail.house.gov]
Sent: Saturday, March 26, 2011 7:21 AM
To: Droggitis, Spiros
Subject: Re: [LIKELY_SPAM]Daily Plant Status Report - 3/26/2011

What does it mean that the recirculation pump seals have likely failed?
Thanks
Michal
Michal Ilana Freedhoff, Ph.D.
Policy Director
Office of Representative Edward J. Markey
2108 Rayburn House Office Building
Washington, DC 20515
202-225-2836

Sent using BlackBerry

From: Droggitis, Spiros <Spiros.Droggitis@nrc.gov>
To: Droggitis, Spiros <Spiros.Droggitis@nrc.gov>
Cc: Schmidt, Rebecca <Rebecca.Schmidt@nrc.gov>; Powell, Amy <Amy.Powell@nrc.gov>; Shane, Raeann <Raeann.Shane@nrc.gov>; Riley (OCA), Timothy <Timothy.RileyOCA@nrc.gov>; Decker, David <David.Decker@nrc.gov>; Dacus, Eugene <Eugene.Dacus@nrc.gov>
Sent: Sat Mar 26 07:07:28 2011
Subject: [LIKELY_SPAM]Daily Plant Status Report - 3/26/2011

XXXX-373

Riley (OCA), Timothy

From: Dacus, Eugene
Sent: Monday, March 28, 2011 11:11 AM
To: PMT01 Hoc
Cc: Powell, Amy; Schmidt, Rebecca; Weil, Jenny; Riley (OCA), Timothy; Decker, David; Shane, Raeann; Droggitis, Spiros
Subject: Congressional Inquiry

The inquiry below came from Sen. Sanders' office. Please respond.

I have a quick question to relay from a constituent who lives near VY and is in Japan, and cognizant of the 50 mile radius NRC has warned to stay away from near the Fukushima plant. She asked about the 10 mile zone around VY where she said NRC has said in past there would never be a need to evacuate a broader radius than 10 miles, and is concerned about this. Have event in Japan changed NRC's thoughts in terms of safety in event of incident at VY?

Eugene Dacus
Sr. Congressional Affairs Officer
U.S. Nuclear Regulatory Commission
Office: 301-415-1697
Fax: 301-415-8571
E-mail: eugene.dacus@nrc.gov

XXXX-374

David Decker

From: Doane, Margaret
Sent: Monday, March 28, 2011 5:52 PM
To: Henderson, Karen; Schwartzman, Jennifer
Cc: Decker, David; Rihm, Roger
Subject: RE: Heads up re: likely questions from SAC Energy and Water

Importance: High

Dave, can you give me a time tomorrow. Karen and Jen have gone for the day, but it will take them no time to write something up.
Margie

-----Original Message-----
From: Decker, David
Sent: Monday, March 28, 2011 5:34 PM
To: Doane, Margaret; Rihm, Roger
Subject: FW: Heads up re: likely questions from SAC Energy and Water

Margie and Roger,
Attached below are some initial "questions" that the SAC Subcommittee on Energy and Water Development sent to us as a "heads-up" of what might be asked at this Wednesday's hearing where the Chairman will be the NRC's representative. The first set of questions looks like it deals with international/IAEA type issues (Margie stuff), with the rest of them being more in the EDO world (Roger stuff). Whatever you can do tomorrow to provide talking points/one-pagers (anything really) to address these questions would greatly help the Chairman prepare for his hearing. If you can develop something, just e-mail it to me and we will provide it to the Chairman. Thanks!

-----Original Message-----
From: Powell, Amy
Sent: Monday, March 28, 2011 3:52 PM
To: Schmidt, Rebecca; Batkin, Joshua
Cc: Decker, David
Subject: Heads up re: likely questions from SAC Energy and Water

FYI, Doug Clapp just send an initial (partial) list of potential questions for Wednesday's SAC Energy and Water hearing - see below...

Amy

-----Original Message-----
From: Clapp, Doug (Appropriations) [mailto:Doug_Clapp@appro.senate.gov]
Sent: Monday, March 28, 2011 2:59 PM
To: Powell, Amy
Subject: FW: this is what i have so far

Don't know what Matt will add but these are draft questions I've done up. When I have final list of questions I will send to you but unlikely to be until late tomorrow so wanted to give you early heads up.

-----Original Message-----
From: Clapp, Doug (Appropriations)
Sent: Monday, March 28, 2011 2:53 PM
To: Nelson, Matthew (Feinstein)
Subject: this is what i have so far

XXXX-3/5

FIRST PANEL QUESTIONS

Failure of IAEA to Lead and Provide Information:

Chairman Jaczko, there has been significant confusion created by conflicting information and inadequate information coming out of Japan. Clearly the nature of the nuclear crisis creates most of this confusion, but some attribute a portion of the problem to the utility and Japanese government.

The rest of the world is left to sift through conflicting information and conduct remote independent radiation monitoring to try to assess the situation. This appears to be a problem.

* Does the International Atomic Energy Agency have a role to play in assuring governments adequately share information?

* Does the IAEA have a role in assuring international assessments of radiation levels?

* Do you feel the international community is better prepared since Chernobyl, and if so, how has that been demonstrated with the event at Daiichi?

NAS Study on Spent Fuel

Chairman Jaczko, in 2006 a National Academy of Sciences committee completed a report requested by the NRC and Department of Homeland Security related to safety of spent nuclear fuel. Matt Bunn of Harvard wrote an op-ed this past week that two recommendations from that NAS report were to 1) put old fuel next to new fuel in the spent fuel pools, and 2) add sprayers over the pools in case cooling water was lost for whatever reason. He says the NRC did not implement these recommendations.

* Can you tell me if Mr. Bunn is correct, and if so, why the NRC did not implement these two safety recommendations made by the NAS report?

* Are there other suggestions from the NAS, or other entities, that the NRC has not implemented that you are willing to reconsider in light of events at Daiichi?

Independent Assessment of Nuclear Power Safety in the United States

Chairman Jaczko, I want to thank you and the people of your agency for the hard work and long hours many of you have been putting in since March 11. I further want to say that I believe the women and men of your agency work hard every day to keep our power plants safe. So, in no way do I want you or the workforce of the NRC to take this question as a slight.

* Do you believe there is value in having an independent assessment of nuclear power safety in the United States?

Design Basis Reassessment

Chairman Jaczko, in the past four years there has been earthquakes in Japan that have exceeded the design basis for nuclear plants in the vicinity of the earthquakes.

* How confident are you that our design basis for U.S. plants is sufficient?

* Why were the Japanese so wrong on their assumptions of the possible maximum earthquake and tsunami events?

Relicensing not including seismic and tsunami

Chairman Jaczko, I understand from my trip to Diablo Canyon that the relicensing process does not include a review of seismic and tsunami threats. Rather that relicensing is focused more on the aging of materials and equipment. The plant operators and NRC personnel on the trip explained that seismic and tsunami issues are considered on a continuing basis and thus do not need to be part of the relicensing.

I find this a little confusing. I understand relicensing should consider aging of materials and equipment as 20 to 40 years have passed since the initial license. But our information relative to seismic and tsunami threats has also changed over this time.

* If seismic and tsunami issues are not considered during relicensing, what guarantee do we have that the NRC is adequately considering these issues at any other time?

* If not considered during relicensing, does the burden fall to the federal government to prove there is a need to modify the license due to seismic or tsunami information or does that burden get put on the plant operator?

David Decker

From: Weil, Jenny
Sent: Monday, March 28, 2011 11:56 AM
To: Decker, David
Subject: RE: Mark Holt CRS called

I'll check with the Moly-99 crowd.

From: Quesenberry, Jeannette
Sent: Monday, March 28, 2011 11:55 AM
To: Decker, David; Weil, Jenny
Subject: RE: Mark Holt CRS called

It is medical. Sorry.

From: Decker, David
Sent: Monday, March 28, 2011 11:51 AM
To: Weil, Jenny
Cc: Quesenberry, Jeannette
Subject: RE: Mark Holt CRS called

Jenny,
Do you know, by any chance, if the US produces this isotope (guessing that it's a medical isotope)?

From: Quesenberry, Jeannette
Sent: Monday, March 28, 2011 11:49 AM
To: Decker, David
Subject: Mark Holt CRS called

He needs to know if the US is a producer of radioactive Thalium isotopes?

His research only revealed a Canadian producer.

202-707-1704

Thanks David.

Jeannette V. Quesenberry
Office of Congressional Affairs
U.S. Nuclear Regulatory Commission
Jeannette.Quesenberry@nrc.gov
301-415-1776
301-415-8571

XXXX-576

From: LIA05 Hoc
Sent: Wednesday, March 30, 2011 5:10 PM
To: FOIA Response.hoc Resource
Subject: FW: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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-----Original Message-----
From: Feighert, Dan [mailto:dan.feighert@dhs.gov]
Sent: Thursday, March 24, 2011 2:32 PM
To: LIA05 Hoc
Subject: RE: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

No
I am sending another e-mail but they are with Jim K. at the RA meeting which I am sure is lively.

-----Original Message-----
From: prvs=0573bcf4e=LIA05.Hoc@nrc.gov [mailto:prvs=0573bcf4e=LIA05.Hoc@nrc.gov] On Behalf Of LIA05 Hoc
Sent: Thursday, March 24, 2011 12:30 PM
To: Feighert, Dan
Cc: DeFelice, Anthony; Horton, Douglas A
Subject: RE: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

Mr. Feighert,

Any status from the attorneys? I have relieved Mr. Spencer.

Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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

From: Feighert, Dan [mailto:dan.feighert@dhs.gov]
Sent: Thursday, March 24, 2011 12:46 PM
To: LIA05 Hoc
Subject: RE: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

Odis
Response if done - Vanessa is good with response but need review by REP attorneys. Waiting for their review and response.

-----Original Message-----
From: prvs=0573bcf4e=LIA05.Hoc@nrc.gov [mailto:prvs=0573bcf4e=LIA05.Hoc@nrc.gov] On Behalf Of LIA05 Hoc
Sent: Thursday, March 24, 2011 8:51 AM
To: Feighert, Dan
Subject: RE: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

Thanks...Rebecca queried me to the status of the response, apparently because Vanessa cc'd her with my earlier inquiry.

Odis Spencer Dayshift 0700-1500
Harry Nash Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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-----Original Message-----
From: Feighert, Dan [mailto:dan.feighert@dhs.gov]
Sent: Thursday, March 24, 2011 10:48 AM
To: LIA05 Hoc; Dan Feighert; Andrew Seward; Harry Sherwood; John Simpson; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn
Subject: RE: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

I am working on response. I have an 11a.m. call but will finish response asap.

-----Original Message-----
From: prvs=0573bcf4e=LIA05.Hoc@nrc.gov [mailto:prvs=0573bcf4e=LIA05.Hoc@nrc.gov] On Behalf Of LIA05 Hoc
Sent: Thursday, March 24, 2011 6:44 AM
To: Dan Feighert; Andrew Seward; Harry Sherwood; John Simpson; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn
Subject: Request for response Ref: Inquires related to U.S procedure during Nuclear Emergency

This request is in response to the Action item addressed below forwarded during the evening shift yesterday; to this point no response has been received.

Results of my review follow:

Our references that address this issue are NUREG 0654 and the Interim REP Manual. While both address the topic issue general guidance, neither provides detailed procedures or comprehensive steps or template for organizational plans. This allows and provides the flexibility for jurisdictions to develop their own plans and procedures that best address the variables and risk assessment that accommodate their communities.

Request your guidance on the adequacy of the statement above, modifications or additional information to provide an official response in the EOC asap.

Odis

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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-----Original Message-----
From: LIA05 Hoc
Sent: Wednesday, March 23, 2011 8:43 PM
To: Dan Feighert; 'Andrew Seward'; 'Harry Sherwood'; John Simpson; 'Michelle Ralston'; 'Steve Horwitz'; 'Tim Greten'; 'Vanessa E. Quinn'
Subject: FW: Inquires related to U.S procedure during Nuclear Emergency
Importance: High

NRC Ops has requested any guidance FEMA can provide.

Larry Broockerd Dayshift 0700-1500
Harry Nash Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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-----Original Message-----
From: LIA02 Hoc
Sent: Wednesday, March 23, 2011 8:39 PM
To: LIA05 Hoc
Subject: FW: Inquries related to U.S procedure during Nuclear Emergency
Importance: High

-----Original Message-----
From: Smith, Brooke
Sent: Wednesday, March 23, 2011 7:32 PM
To: LIA02 Hoc; LIA03 Hoc; Emche, Danielle
Subject: FW: Inquries related to U.S procedure during Nuclear Emergency
Importance: High

I received this request for assistance from NISA. I think the best approach would be to first provide them with relevent NUREGS. Please reach out to our technical staff. I will communicate directly with Mr. Hara. Thanks!

From: hara-nobuyuki@meti.go.jp [hara-nobuyuki@meti.go.jp]
Sent: Wednesday, March 23, 2011 10:09 AM
To: Smith, Brooke
Cc: fuchigami-yoshihiro@meti.go.jp; koyama-masaomi@meti.go.jp
Subject: Inquries related to U.S procedure during Nuclear Emergency

Dear Ms Brooke Smith,

Please let me allow to introduce myself first.
My name is Nobuyuki Hara working for NISA, METI. I have some inquiries related to U.S Nuclear Emergency Procedure.
My colleague, Mr. Koyama at International Affairs Office of NISA kindly suggested me to contact you directly regarding this issue.

As you know we are still on the process of nuclear emergency response.
However response activities are terminated when the situation has been stabilized.
We believe that at this point, potential threats to workers, the public, the environment, and national security have been characterized, conditions no longer meet established categorization criteria, and it appears unlikely that conditions will deteriorate.
The emergency is then declared terminated and the activities should focus on recovery.

In this context, we are more than happy to know U.S procedure.
I am wondering if you could provide some appropriate U.S document on this procedure of termination and the procedure on how to allow people to enter in the Emergency Planning Zone (EPZ) that people was forced to evacuate from that zone.

It would very much appreciate it if you could contact me whenever you will be convenient during your stay in Japan.

Thank you very much for your kind assistance.

Best regards,
Nobuyuki Hara

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Nobuyuki Hara (Mr.)
Deputy Director, NISA
Tel: +81 3-3501-1503
E-mail: hara-nobuyuki@meti.go.jp

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

From: LIA05 Hoc
Sent: Wednesday, March 30, 2011 4:17 PM
To: FOIA Response.hoc Resource
Subject: FW: FYI - READY TO DEPLOY

Bonnie Sheffield Dayshift 0700-1500
Ken Wierman Nightshift 1500-2300
FEMA REP Liaison
NRC Operations Center
(301) 816-5187

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

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

Mike

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

301-415-1705
Mail Stop O16E15

XXXX-378

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 28, 2011 9:39 AM
To: Voglewede, John
Cc: Tinkler, Charles; Lee, Richard
Subject: Re: WGFS: Stress test

Thanks John, Richard and Charlie are the right people.

From: Voglewede, John
To: Gibson, Kathy
Cc: Tinkler, Charles; Lee, Richard
Sent: Mon Mar 28 09:12:31 2011
Subject: FW: WGFS: Stress test

Kathy,

Attached is some correspondence from Radomir Rehacek to the OECD/NEA Working Group (on Fuel Safety) in which I participate.

The essence of the message is not so much the Fukushima accident as a possible European response to what happened in Japan. The WENRA is the Western European Nuclear Regulators' Association (www.wenra.org). The stress test concept involves questions that might be asked of licensees or analyses that might required (e.g., station blackout). Radomir also provides a specific example from Finland.

The concept is interesting insofar as next steps for countries outside of Japan.

I don't know how to put this into the agency information flow other than to forward copies to Charlie and Richard.

John

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Riley (OCA), Timothy

From:	Weil, Jenny
Sent:	Friday, March 25, 2011 10:39 AM
To:	Schmidt, Rebecca; Powell, Amy
Cc:	Riley (OCA), Timothy
Subject:	FW: Senate Energy: Week Ahead (March 28-April 1)
Attachments:	image001.jpg

The media/press release is now out on Tuesday's meeting.

United States Senate Committee on
Energy & Natural Resources

Chairman Jeff Bingaman — Democrat · New Mexico

Week of March 28 – April 1

- **On Tuesday, March 29, the full committee will meet to gather information on recent events at Japan's Fukushima Daiichi reactor complex. Participants include Dr. Peter Lyons, acting assistant secretary, office of nuclear energy, Department of Energy; Bill Borchardt, executive director for operations, Nuclear Regulatory Commission; David Lochbaum, nuclear power project, Union of Concerned Scientists; and Anthony R. Pietrangelo, senior vice president and chief nuclear officer, Nuclear Energy Institute.** *(Dirksen 366 at 10:00 a.m.)*

- **On Wednesday, March 30, the subcommittee on national parks will consider the President's Fiscal Year 2012 proposed budget for the National Park Service. Jonathan B. Jarvis, director of the National Park Service, will be the witness.** *(Dirksen 366 at 2:30 p.m.)*

- **On Thursday, March 31, the full committee will consider several bills related to hydropower, including *S. 629*, *S. 620*, and Title I, Subtitle D of**

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the American Clean Energy Leadership Act of 2009. The witness list will be posted to our website. *(Dirksen 366 at 9:30 a.m.)*

Bonuses ...

CES. ***Chairman Bingaman and Ranking Republican Murkowski this week released a white paper soliciting input on a Clean Energy Standard. It is publicly available on our website, and anyone interested can submit responses, per the instructions.***

Got plans? ***Wednesday, March 30, at 8 a.m., Chairman Bingaman will sit down with Darren Samuelsohn at an open press event at the Newseum. POLITICOPro subscribers and reporters can attend live, and everyone else can watch it live at www.politico.com/livestream .***

# # #

Riley (OCA), Timothy

From: Droggitis, Spiros
Sent: Monday, March 28, 2011 3:51 PM
To: Freedhoff, Michal
Cc: Riley (OCA), Timothy
Subject: RE: [LIKELY_SPAM]Daily Plant Status Report - 3/26/2011

Michal: Here's what I got back from the technical folks at the Operations Center on your question on the suspected recirculation pump seal failure:

Recirculation pumps, located in the drywell, may have failed seals. Seal failure creates a pathway for radioactive reactor coolant system water to travel from the reactor to the primary containment structure.

Hope this helps. Thanks, Spiros

From: Freedhoff, Michal [mailto:Michal.Freedhoff@mail.house.gov]
Sent: Saturday, March 26, 2011 7:21 AM
To: Droggitis, Spiros
Subject: Re: [LIKELY_SPAM]Daily Plant Status Report - 3/26/2011

What does it mean that the recirculation pump seals have likely failed?
Thanks
Michal
Michal Ilana Freedhoff, Ph.D.
Policy Director
Office of Representative Edward J. Markey
2108 Rayburn House Office Building
Washington, DC 20515
202-225-2836

Sent using BlackBerry

From: Droggitis, Spiros <Spiros.Droggitis@nrc.gov>
To: Droggitis, Spiros <Spiros.Droggitis@nrc.gov>
Cc: Schmidt, Rebecca <Rebecca.Schmidt@nrc.gov>; Powell, Amy <Amy.Powell@nrc.gov>; Shane, Raeann <Raeann.Shane@nrc.gov>; Riley (OCA), Timothy <Timothy.RileyOCA@nrc.gov>; Decker, David <David.Decker@nrc.gov>; Dacus, Eugene <Eugene.Dacus@nrc.gov>
Sent: Sat Mar 26 07:07:28 2011
Subject: [LIKELY_SPAM]Daily Plant Status Report - 3/26/2011

XXXX-381

Riley (OCA), Timothy

From: Joseph, Avenel [Avenel.Joseph@mail.house.gov]
Sent: Monday, March 28, 2011 2:49 PM
To: Riley (OCA), Timothy
Cc: Droggitis, Spiros
Subject: RE: NRC Daily calls

Thanks.

Avenel Joseph, M.S., Ph.D.
Office of Congressman Edward J. Markey
2108 Rayburn House Office Building
202-225-2836

From: Riley (OCA), Timothy [mailto:Timothy.RileyOCA@nrc.gov]
Sent: Monday, March 28, 2011 2:47 PM
To: Joseph, Avenel
Cc: Droggitis, Spiros
Subject: NRC Daily calls

Avenel,
You wrote to Spiros Droggitis asking about the daily calls we had been offering re: updates on Fukushima. We are not scheduling any regularly occurring calls at this time, but will announce calls if warranted. We're responding to information requests as best we can, but with limited resources.
NRC senior executives will be appearing at four hearings this week, I hope that their testimony will be of interest to you:
Tuesday, March 29, 10:00 am,– Senate Energy and Natural Resources Committee
366 Dirksen Senate Office Building
Mr. Bill Borchardt: **Update on Fukushima**

Wednesday, March 30, 10:00 am, House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings, and Emergency Management.
2253 Rayburn House Office Building
Mr. Mike Weber: **Emergency Management Programs**

Wednesday, March 30, 10:00 am, Senate Appropriations Energy and Water Subcommittee
138 Dirksen Senate Office Building
Chairman Jaczko: **Review of Nuclear Safety**

Thursday, March 31, 10:00 am, House Appropriations Energy and Water Subcommittee
2362B Rayburn House Office Building
Chairman Jaczko

Timothy Riley
Congressional Affairs Officer
U. S. Nuclear Regulatory Commission
Office of Congressional Affairs
Phone: 301-415-8492

XXXX-388

Riley (OCA), Timothy

From: Weil, Jenny
Sent: Monday, March 28, 2011 12:08 PM
To: OCA Distribution
Subject: FW: 1979 : Nuclear accident at Three Mile Island

The version from This Day in History:

March 28: General Interest
1979 : Nuclear accident at Three Mile Island

At 4 a.m. on March 28, 1979, the worst accident in the history of the U.S. nuclear power industry begins when a pressure valve in the Unit-2 reactor at Three Mile Island fails to close. Cooling water, contaminated with radiation, drained from the open valve into adjoining buildings, and the core began to dangerously overheat.

The Three Mile Island nuclear power plant was built in 1974 on a sandbar on Pennsylvania's Susquehanna River, just 10 miles downstream from the state capitol in Harrisburg. In 1978, a second state-of-the-art reactor began operating on Three Mile Island, which was lauded for generating affordable and reliable energy in a time of energy crises.

After the cooling water began to drain out of the broken pressure valve on the morning of March 28, 1979, emergency cooling pumps automatically went into operation. Left alone, these safety devices would have prevented the development of a larger crisis. However, human operators in the control room misread confusing and contradictory readings and shut off the emergency water system. The reactor was also shut down, but residual heat from the fission process was still being released. By early morning, the core had heated to over 4,000 degrees, just 1,000 degrees short of meltdown. In the meltdown scenario, the core melts, and deadly radiation drifts across the countryside, fatally sickening a potentially great number of people.

As the plant operators struggled to understand what had happened, the contaminated water was releasing radioactive gases throughout the plant. The radiation levels, though not immediately life-threatening, were dangerous, and the core cooked further as the contaminated water was contained and precautions were taken to protect the operators. Shortly after 8 a.m., word of the accident leaked to the outside world. The plant's parent company, Metropolitan Edison, downplayed the crisis and claimed that no radiation had been detected off plant grounds, but the same day inspectors detected slightly increased levels of radiation nearby as a result of the contaminated

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water leak. Pennsylvania Governor Dick Thornburgh considered calling an evacuation.

Finally, at about 8 p.m., plant operators realized they needed to get water moving through the core again and restarted the pumps. The temperature began to drop, and pressure in the reactor was reduced. The reactor had come within less than an hour of a complete meltdown. More than half the core was destroyed or molten, but it had not broken its protective shell, and no radiation was escaping. The crisis was apparently over.

Two days later, however, on March 30, a bubble of highly flammable hydrogen gas was discovered within the reactor building. The bubble of gas was created two days before when exposed core materials reacted with super-heated steam. On March 28, some of this gas had exploded, releasing a small amount of radiation into the atmosphere. At that time, plant operators had not registered the explosion, which sounded like a ventilation door closing. After the radiation leak was discovered on March 30, residents were advised to stay indoors. Experts were uncertain if the hydrogen bubble would create further meltdown or possibly a giant explosion, and as a precaution Governor Thornburgh advised "pregnant women and pre-school age children to leave the area within a five-mile radius of the Three Mile Island facility until further notice." This led to the panic the governor had hoped to avoid; within days, more than 100,000 people had fled surrounding towns.

On April 1, President Jimmy Carter arrived at Three Mile Island to inspect the plant. Carter, a trained nuclear engineer, had helped dismantle a damaged Canadian nuclear reactor while serving in the U.S. Navy. His visit achieved its aim of calming local residents and the nation. That afternoon, experts agreed that the hydrogen bubble was not in danger of exploding. Slowly, the hydrogen was bled from the system as the reactor cooled.

At the height of the crisis, plant workers were exposed to unhealthy levels of radiation, but no one outside Three Mile Island had their health adversely affected by the accident. Nonetheless, the incident greatly eroded the public's faith in nuclear power. The unharmed Unit-1 reactor at Three Mile Island, which was shut down during the crisis, did not resume operation until 1985. Cleanup continued on Unit-2 until 1990, but it was too damaged to be rendered usable again. In the more than two decades since the accident at Three Mile Island, not a single new nuclear power plant has been ordered in the United States.

Riley (OCA), Timothy

From: Logaras, Harral
Sent: Monday, March 28, 2011 11:25 AM
To: Seth.Jansen@mail.house.gov
Cc: Riley (OCA), Timothy; Heck, Jared; Barker, Allan; Pederson, Cynthia
Subject: U. S. NRC Congressional Affairs

Dear Mr. Jansen,

I was my pleasure to meet and talk with you at last week's Exelon Community Information Meeting for the Braidwood Nuclear Generating Station. I hope you feel your time with us was well spent. I did enjoy talking with you and sharing information about the NRC's mission and safety focus, and the agency response to events in Japan. While I am at your service here at the NRC Region III Office, please note that the NRC's Office of Congressional Affairs is your best resource for NRC information going forward and your point of contact in that office is Mr. Tim Riley. I have spoken with Tim and he is looking forward to your call or email.

Tim Riley
U. S. NRC Office of Congressional Affairs
One White Flint North
11555 Rockville Pike
Rockville, MD 20852
Telephone: 301-415-8492
Email: Timothy.RileyOCA@nrc.gov

Sincerely,

Harral Logaras
U. S. NRC Region III
Regional Government Liaison
630-829-9659

Link to the *Award Winning* NRC Information Digest http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/v22/sr1350v22.pdf

Link to NRC Fact Sheets and Brochures http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/

XXXX-384

Riley (OCA), Timothy

From: Dacus, Eugene
Sent: Monday, March 28, 2011 11:11 AM
To: PMT01 Hoc
Cc: Powell, Amy; Schmidt, Rebecca; Weil, Jenny; Riley (OCA), Timothy; Decker, David; Shane, Raeann; Droggitis, Spiros
Subject: Congressional Inquiry

The inquiry below came from Sen. Sanders' office. Please respond.

I have a quick question to relay from a constituent who lives near VY and is in Japan, and cognizant of the 50 mile radius NRC has warned to stay away from near the Fukushima plant. She asked about the 10 mile zone around VY where she said NRC has said in past there would never be a need to evacuate a broader radius than 10 miles, and is concerned about this. Have event in Japan changed NRC's thoughts in terms of safety in event of incident at VY?

Eugene Dacus
Sr. Congressional Affairs Officer
U.S. Nuclear Regulatory Commission
Office: 301-415-1697
Fax: 301-415-8571
E-mail: eugene.dacus@nrc.gov

XXX-385

Riley (OCA), Timothy

From: LIA06 Hoc
Sent: Tuesday, March 29, 2011 2:47 PM
To: Hoc, PMT12
Cc: Riley (OCA), Timothy
Subject: Followup from USAID call

At the USAID call today, Sen. Halpin's staff had questions on a Reuters story on the Pu found in samples at the Fukushima Diiachi site.

1. What is the source of the PU
2. Is it Pu-239
3. Confirm the half-life
4. What is the level of concern

Please provide to Tim Riley, OCA so he can transmit to the staffer.

Thank you

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

XXXX-386

Riley (OCA), Timothy

From: Powell, Amy
Sent: Tuesday, March 29, 2011 12:51 PM
To: Riley (OCA), Timothy
Subject: USAID call?

Am I remembering correctly that you are on the USAID call today at 2pm?

AP

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

XXXX-387

Riley (OCA), Timothy

From: Powell, Amy
Sent: Tuesday, March 29, 2011 12:16 PM
To: OCA Distribution
Subject: FW: RESPONSE - News Article on SOARCA
Attachments: image001.png; image002.jpg

FYI – in case there are questions about this AP article. OEDO is working on a response to be used in hearing space, but may prove helpful to us in other ways as well.

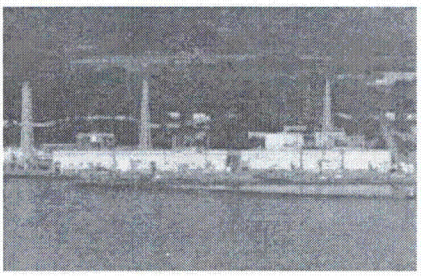
From: Weber, Michael
Sent: Tuesday, March 29, 2011 12:14 PM
To: Sheron, Brian
Cc: Virgilio, Martin; Leeds, Eric; Johnson, Michael; Wiggins, Jim; Rihm, Roger; Milligan, Patricia; Wittick, Brian; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Powell, Amy; Muessle, Mary; Andersen, James; Bowman, Gregory
Subject: RESPONSE - News Article on SOARCA

Thanks, Brian. I'll need to be prepared to respond to this concern in tomorrow morning's hearing and the Chairman will need to be prepared to respond at his hearings tomorrow. Please work with OEDO staff (Roger Rihm/Brian Wittick) to ensure that we develop a short-response by COB today that we can use tomorrow in case this comes up.

David Lochbaum reported at this morning's hearing that 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? Does this taken into consideration the B5b mitigating measures? Was SBO considered among the scenarios that resulted in the U.S. decision to establish the nominal exposure pathway EPZ at 10 miles?

AP IMPACT: Long blackouts pose risk to US reactors

Associated Press



AP – Only Unit 2 is covered with white concrete housing, seen on left of an iron tower on right, at the stricken ...

By DINA CAPPIELLO, Associated Press Dina Cappiello, Associated Press – Tue Mar 29, 3:13 am ET

WASHINGTON – Long before the nuclear emergency in Japan, U.S. regulators knew that a power failure lasting for days at an American nuclear plant, whatever the cause, could lead to a radioactive leak. Even so, they have only required the nation's 104 nuclear reactors to develop plans for dealing with much shorter blackouts on the assumption that power would be restored quickly.

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In one nightmare simulation presented by the Nuclear Regulatory Commission in 2009, it would take less than a day for radiation to escape from a reactor at a Pennsylvania nuclear power plant after an earthquake, flood or fire knocked out all electrical power and there was no way to keep the reactors cool after backup battery power ran out. That plant, the Peach Bottom Atomic Power Station outside Lancaster, has reactors of the same older make and model as those releasing radiation at Japan's Fukushima Dai-ichi plant, which is using other means to try to cool the reactors.

And like Fukushima Dai-ichi, the Peach Bottom plant has enough battery power on site to power emergency cooling systems for eight hours. In Japan, that wasn't enough time for power to be restored. According to the International Atomic Energy Agency and the Nuclear Energy Institute trade association, three of the six reactors at the plant still can't get power to operate the emergency cooling systems. Two were shut down at the time. In the sixth, the fuel was removed completely and put in the spent fuel pool when it was shut down for maintenance at the time of the disaster. A week after the March 11 earthquake, diesel generators started supplying power to two other two reactors, Units 5 and 6, the groups said.

The risk of a blackout leading to core damage, while extremely remote, exists at all U.S. nuclear power plants, and some are more susceptible than others, according to an Associated Press investigation. While regulators say they have confidence that measures adopted in the U.S. will prevent or significantly delay a core from melting and threatening a radioactive release, the events in Japan raise questions about whether U.S. power plants are as prepared as they could and should be.

"We didn't address a tsunami and an earthquake, but clearly we have known for some time that one of the weak links that makes accidents a little more likely is losing power," said Alan Kolaczkowski, a retired nuclear engineer who worked on a federal risk analysis of Peach Bottom released in 1990 and is familiar with the updated risk analysis.

Risk analyses conducted by the plants in 1991-94 and published by the commission in 2003 show that the chances of such an event striking a U.S. power plant are remote, even at the plant where the risk is the highest, the Beaver Valley Power Station in Pennsylvania.

These long odds are among the reasons why the United States since the late 1980s has only required nuclear power plants to cope with blackouts for four or eight hours, depending on the risk. That's about how much time batteries would last. After that, it is assumed that power would be restored. And so far, that's been the case.

Equipment put in place after the Sept. 11, 2001, terrorist attacks could buy more time. Otherwise, the reactor's radioactive core could begin to melt unless alternative cooling methods were employed. In Japan, the utility has tried using portable generators and dumped tons of seawater, among other things, on the reactors in an attempt to keep them cool.

A 2003 federal analysis looking at how to estimate the risk of containment failure said that should power be knocked out by an earthquake or tornado it "would be unlikely that power will be recovered in the time frame to prevent core meltdown."

In Japan, it was a one-two punch: first the earthquake, then the tsunami.

Tokyo Electric Power Co., the operator of the crippled plant, found other ways to cool the reactor core and so far avert a full-scale meltdown without electricity.

"Clearly the coping duration is an issue on the table now," said Biff Bradley, director of risk assessment for the Nuclear Energy Institute. "The industry and the Nuclear Regulatory Commission will have to go back in light of what we just observed and rethink station blackout duration."

David Lochbaum, a former plant engineer and nuclear safety director at the advocacy group Union of Concerned Scientists, put it another way: "Japan shows what happens when you play beat-the-clock and lose."

Lochbaum plans to use the Japan disaster to press lawmakers and the nuclear power industry to do more when it comes to coping with prolonged blackouts, such as having temporary generators on site that can recharge batteries.

A complete loss of electrical power, generally speaking, poses a major problem for a nuclear power plant because the reactor core must be kept cool, and back-up cooling systems — mostly pumps that replenish the core with water_ require massive amounts of power to work.

Without the electrical grid, or diesel generators, batteries can be used for a time, but they will not last long with the power demands. And when the batteries die, the systems that control and monitor the plant can also go dark, making it difficult to ascertain water levels and the condition of the core.

One variable not considered in the NRC risk assessments of severe blackouts was cooling water in spent fuel pools, where rods once used in the reactor are placed. With limited resources, the commission decided to focus its analysis on the reactor fuel, which has the potential to release more radiation.

An analysis of individual plant risks released in 2003 by the NRC shows that for 39 of the 104 nuclear reactors, the risk of core damage from a blackout was greater than 1 in 100,000. At 45 other plants the risk is greater than 1 in 1 million, the threshold NRC is using to determine which severe accidents should be evaluated in its latest analysis.

The Beaver Valley Power Station, Unit 1, in Pennsylvania had the greatest risk of core melt — 6.5 in 100,000, according to the analysis. But that risk may have been reduced in subsequent years as NRC regulations required plants to do more to cope with blackouts. Todd Schneider, a spokesman for FirstEnergy Nuclear Operating Co., which runs Beaver Creek, told the AP that batteries on site would last less than a week.

In 1988, eight years after labeling blackouts "an unresolved safety issue," the NRC required nuclear power plants to improve the reliability of their diesel generators, have more backup generators on site, and better train personnel to restore power. These steps would allow them to keep the core cool for four to eight hours if they lost all electrical power. By contrast, the newest generation of nuclear power plant, which is still awaiting approval, can last 72 hours without taking any action, and a minimum of seven days if water is supplied by other means to cooling pools.

Despite the added safety measures, a 1997 report found that blackouts — the loss of on-site and off-site electrical power — remained "a dominant contributor to the risk of core melt at some plants." The events of Sept. 11, 2001, further solidified that nuclear reactors might have to keep the core cool for a longer period without power. After 9/11, the commission issued regulations requiring that plants have portable power supplies for relief valves and be able to manually operate an emergency reactor cooling system when batteries go out.

The NRC says these steps, and others, have reduced the risk of core melt from station blackouts from the current fleet of nuclear plants.

For instance, preliminary results of the latest analysis of the risks to the Peach Bottom plant show that any release caused by a blackout there would be far less rapid and would release less radiation than previously thought, even without any actions being taken. With more time, people can be evacuated. The NRC says improved computer models, coupled with up-to-date information about the plant, resulted in the rosier outlook.

"When you simplify, you always err towards the worst possible circumstance," Scott Burnell, a spokesman for the Nuclear Regulatory Commission, said of the earlier studies. The latest work shows that "even in situations where everything is broken and you can't do anything else, these events take a long time to play out," he said. "Even when you get to releasing into environment, much less of it is released than actually thought."

Exelon Corp., the operator of the Peach Bottom plant, referred all detailed questions about its preparedness and the risk analysis back to the NRC. In a news release issued earlier this month, the company, which operates 10 nuclear power plants, said "all Exelon nuclear plants are able to safely shut down and keep the fuel cooled even without electricity from the grid."

Other people, looking at the crisis unfolding in Japan, aren't so sure.

In the worst-case scenario, the NRC's 1990 risk assessment predicted that a core melt at Peach Bottom could begin in one hour if electrical power on- and off-site were lost, the diesel generators — the main back-up source of power for the pumps that keep the core cool with water — failed to work and other mitigating steps weren't taken.

"It is not a question that those things are definitely effective in this kind of scenario," said Richard Denning, a professor of nuclear engineering at Ohio State University, referring to the steps NRC has taken to prevent incidents. Denning had done work as a contractor on severe accident analyses for the NRC since 1975. He retired from Battelle Memorial Institute in 1995.

"They certainly could have made all the difference in this particular case," he said, referring to Japan. "That's assuming you have stored these things in a place that would not have been swept away by tsunami."

From: Chang, Richard
Sent: Tuesday, March 29, 2011 7:35 AM
To: Schaperow, Jason; Tinkler, Charles; Santiago, Patricia; Ghosh, Tina; Armstrong, Kenneth
Subject: FYI- News Article on SOARCA

http://news.yahoo.com/s/ap/20110329/ap_on_re_us/us_us_japan_nuclear_blackouts_2

Richard Chang
Program Manager
RES/DSA/SPB
301-251-7980

Riley (OCA), Timothy

From: Droggitis, Spiros
Sent: Tuesday, March 29, 2011 7:24 AM
To: OCA Distribution
Subject: From CQ Homeland Security page this morning

Rep. **Edward J. Markey**, D-Mass., will hold a news conference on **providing potassium iodide to the 20 mile radius of nuclear power plants**. *2 p.m., House Triangle (Outside), Capitol*

XXXX-389

David Decker

From: Ciarcia, Ray (HSGAC) [Ray_Ciarcia@hsgac.senate.gov]
Sent: Tuesday, March 29, 2011 5:26 PM
To: Decker, David
Subject: FW: Nuclear sector security/safety

David,

I wanted to follow up on the topic of NRC-DHS cooperation with respect to nuclear power facility security and disaster preparedness. I can imagine that ongoing events and renewed interest in nuclear safety are keeping you busy, but let me know if you have an opportunity to meet at some point.

Thanks,
-Ray

Raymond Ciarcia
202.228.3901

Subcommittee on Oversight of Government Management,
the Federal Workforce, and the District of Columbia
U.S. Senate Committee on Homeland Security and Governmental Affairs
601 Hart Senate Office Building
Washington, DC 20510

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From: Ciarcia, Ray (HSGAC)
Sent: Monday, March 14, 2011 10:37 AM
To: 'david.decker@nrc.gov'
Cc: Tamarkin, Eric (HSGAC)
Subject: Nuclear sector security/safety

David,

I am new to Senator Akaka's Subcommittee on Oversight staff under the Senate Homeland Security Committee. Based on Joel's notes, I believe you may have met or corresponded with Joel Spangenberg from our subcommittee on the topic of nuclear sector security. Joel has since moved on and Eric and I are working the issues he had worked in the past, including nuclear security.

I am very interested in meeting with you to continue our efforts to understand the security stance of domestic nuclear facilities, including NRC's collaboration with DHS to understand the threat scenario and assist FEMA in preparing for a nuclear emergency.

Furthermore, in light of recent events in Japan, I am especially interested in understanding the extent to which NRC ensures that domestic reactors are adequately designed and prepared for earthquake and tsunami events. For example,

XXXX-B9D

recent news reports have raised concerns about the vulnerability of the California Diablo Canyon plant to both severe earthquakes and tsunamis.

If you are located the DC area, would you be able to meet with us in the near future to discuss the above topics? If so, we are generally free the latter half of this week and next.

Thank you,
-Ray

Raymond Ciarcia
202.228.3901

Subcommittee on Oversight of Government Management,
the Federal Workforce, and the District of Columbia
U.S. Senate Committee on Homeland Security and Governmental Affairs
601 Hart Senate Office Building
Washington, DC 20510

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David Decker

From: Blake, Kathleen
Sent: Tuesday, March 29, 2011 3:12 PM
To: Batkin, Joshua; Bubar, Patrice; Nieh, Ho; Sosa, Belkys; Powell, Amy; Reddick, Darani; Davis, Roger; Sharkey, Jeffry; Decker, David
Subject: Commissioner Apostolakis' comments on Draft Testimony for Hearing Before Senate Appropriations Subcommittee - March 30th
Attachments: [Untitled].pdf

Commissioner Apostolakis' comments are attached regarding the Draft Testimony for the Hearing Before the Senate Appropriations Subcommittee on Energy and Water Development in Light of Events in Japan.

Kathleen M. Blake
Administrative Assistant
to Commissioner Apostolakis
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852
301-415-1810

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David Decker

From: OST02 HOC
Sent: Tuesday, March 29, 2011 1:31 PM
To: Abrams, Charlotte; Abu-Eid, Boby; 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; Benner, Eric; Bensi, 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; Carlson, Donald; 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; Coe, Doug; 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; Droggitis, Spiros; Dube, Donald; Dudes, Laura; Eads, Johnny; Easson, Stuart; Emche, Danielle; English, Lance; Erlanger, Craig; Esmaili, 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; Giitter, Joseph; Gilmer, James; Glenn, Nichole; Gordon, Dennis; Gott, William; Grant, Jeffery; Gray, Kathy; Greenwood, Carol; Grimes, Kelly; Grobe, Jack; Gross, Allen; Gulla, Gerald; Hackett, Edwin; 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; Hipschman, Thomas; Holahan, Patricia; Holahan, Vincent; Holian, Brian; HOO Hoc; Horn, Brian; Howard, Arlette; Howard, Tabitha; Howe, Allen; Huffert, Anthony; Hurd, Sapna; Huyck, Doug; Imboden, Andy; Isom, James; Jackson, Karen; Jacobson, Jeffrey; Jervey, 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; Kowalczik, 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; Lovell, Louise; 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; Musico, Bruce; Nerret, Amanda; Nguyen, Caroline; Norris, Michael; Norton, Charles; Nosek, Andrew; Opara, Stella; Ordaz, Vonna; Orr, Mark; 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; Roach, Edward; Robinson, Edward; Rodriguez-Luccioni, Hector; Roggenbrodt, William; Ropon, 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; Smiroldo, Elizabeth; Smith, Brooke; Smith, Stacy; Smith, Theodore; Solorio, Dave; Stahl, Eric; Stang, Annette; Stark, Johnathan; Steger (Tucci), Christine; Stieve, Alice; Stone, Rebecca; Stransky, Robert; Sturz, Fritz; Sullivan, Randy; Summers, Robert; Sun, Casper; Takacs, Michael; Tappert, John; Tegeler, Bret; Temple, Jeffrey; Thaggard, Mark; Thomas, Eric; Thorp, John; Tiruneh, Nebiyu; Tobin, Jennifer; Trefethen, Jean; Tschiltz, Michael; Turtil,

XXXX-39

To: 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; Williams, Tamera; Williamson, Linda; Willis, Dori; Wimbush, Andrea; Wittick, Brian; Wray, John; Wright, Lisa (Gibney); Wright, Ned; Wunder, George; Young, Francis; Zimmerman, Jacob; Zimmerman, Roy

Cc: Evans, Michele; Lobe, Jon; Linnerooth, Sarah

Subject: NRC's Employee Assistance Program (EAP) - Session Schedule

NRC's Employee Assistance Program (EAP) will be briefing employees who work in the Ops Center on the issue of critical incident stress. Several sessions will be held as follows:

Wednesday, March 30, 2 – 2:30 p.m.
Wednesday, March 30, 3 -4:00 p.m.

Friday, April 1st, 7 – 8 a.m.

Wednesday, April 6, 7 – 8 a.m.
Wednesday, April 6, 2 – 2:30 p.m.
Wednesday, April 6, 3 – 4 p.m.

These sessions are open to staff working in the Ops Center on those days, as well as to any staff who have worked or will be working in the Ops Center on another day.

We understand the high level of stress that staff may be experiencing or seeing coworkers experience during the current traumatic Japanese incident. We want to bring you the support you deserve during this heightened time of stress. We strongly encourage all employees to attend. The briefings will be held in T-4B3 (conference room located down the hall to the right upon exiting the Ops Center).

Michele Evans
Acting Deputy OD, NSIR

David Decker

From: David Decker
Sent: Tuesday, March 29, 2011 1:06 PM
To: Jennifer Schwartzman
Subject: RE: ~~OUO~~-RE: Heads up re: likely questions from SAC Energy and Water

Great - thanks Jen!

-----Original Message-----
From: Schwartzman, Jennifer
Sent: Tuesday, March 29, 2011 12:25 PM
To: Doane, Margaret; Decker, David
Cc: Henderson, Karen
Subject: ~~OUO~~-RE: Heads up re: likely questions from SAC Energy and Water

~~OFFICIAL USE ONLY - LIMITED DISTRIBUTION~~

David,

Please see attached - our "meeting of the minds" on how to respond to these questions. They are a little long but there really is a lot of information to cover.

Please note that one thing that is not covered in our responses is the Convention on Assistance in the Event of a Nuclear Accident or Radiological Emergency. A country has to make a formal request for assistance under this Convention in order for the IAEA to take a lead coordinating role. The Japanese have opted not to make such a request. It's important for the Chairman to know this technicality in the event of follow-up questions. We don't want to be critical of the Japanese - it's their sovereign decision to make. But we also need to be factually honest about the limitations of the IAEA's role.

Let us know if you have any questions. Thanks!

-----Original Message-----
From: Doane, Margaret
Sent: Monday, March 28, 2011 5:52 PM
To: Henderson, Karen; Schwartzman, Jennifer
Cc: Decker, David; Rihm, Roger
Subject: RE: Heads up re: likely questions from SAC Energy and Water
Importance: High

Dave, can you give me a time tomorrow. Karen and Jen have gone for the day, but it will take them no time to write something up.
Margie

-----Original Message-----
From: Decker, David
Sent: Monday, March 28, 2011 5:34 PM
To: Doane, Margaret; Rihm, Roger
Subject: FW: Heads up re: likely questions from SAC Energy and Water

Margie and Roger,
Attached below are some initial "questions" that the SAC Subcommittee on Energy and Water Development sent to us as a "heads-up" of what might be asked at this Wednesday's hearing where the Chairman will be the NRC's representative. The first set of questions looks like it deals with international/IAEA type issues (Margie

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stuff), with the rest of them being more in the EDO world (Roger stuff). Whatever you can do tomorrow to provide talking points/one-pagers (anything really) to address these questions would greatly help the Chairman prepare for his hearing. If you can develop something, just e-mail it to me and we will provide it to the Chairman. Thanks!

-----Original Message-----
From: Powell, Amy
Sent: Monday, March 28, 2011 3:52 PM
To: Schmidt, Rebecca; Batkin, Joshua
Cc: Decker, David
Subject: Heads up re: likely questions from SAC Energy and Water

FYI, Doug Clapp just send an initial (partial) list of potential questions for Wednesday's SAC Energy and Water hearing - see below...

Amy

-----Original Message-----
From: Clapp, Doug (Appropriations) [mailto:Doug_Clapp@appro.senate.gov]
Sent: Monday, March 28, 2011 2:59 PM
To: Powell, Amy
Subject: FW: this is what i have so far

Don't know what Matt will add but these are draft questions I've done up. When I have final list of questions I will send to you but unlikely to be until late tomorrow so wanted to give you early heads up.

-----Original Message-----
From: Clapp, Doug (Appropriations)
Sent: Monday, March 28, 2011 2:53 PM
To: Nelson, Matthew (Feinstein)
Subject: this is what i have so far

FIRST PANEL QUESTIONS

Failure of IAEA to Lead and Provide Information:

Chairman Jaczko, there has been significant confusion created by conflicting information and inadequate information coming out of Japan. Clearly the nature of the nuclear crisis creates most of this confusion, but some attribute a portion of the problem to the utility and Japanese government.

The rest of the world is left to sift through conflicting information and conduct remote independent radiation monitoring to try to assess the situation. This appears to be a problem.

* Does the International Atomic Energy Agency have a role to play in assuring governments adequately share information?

* Does the IAEA have a role in assuring international assessments of radiation levels?

* Do you feel the international community is better prepared since Chernobyl, and if so, how has that been demonstrated with the event at Daiichi?

NAS Study on Spent Fuel

Chairman Jaczko, in 2006 a National Academy of Sciences committee completed a report requested by the NRC and Department of Homeland Security related to safety of spent nuclear fuel. Matt Bunn of Harvard wrote an op-ed this past week that two recommendations from that NAS report were to 1) put old fuel next to new fuel in the spent fuel pools, and 2) add sprayers over the pools in case cooling water was lost for whatever reason. He says the NRC did not implement these recommendations.

* Can you tell me if Mr. Bunn is correct, and if so, why the NRC did not implement these two safety recommendations made by the NAS report?

* Are there other suggestions from the NAS, or other entities, that the NRC has not implemented that you are willing to reconsider in light of events at Daiichi?

Independent Assessment of Nuclear Power Safety in the United States

Chairman Jaczko, I want to thank you and the people of your agency for the hard work and long hours many of you have been putting in since March 11. I further want to say that I believe the women and men of your agency work hard every day to keep our power plants safe. So, in no way do I want you or the workforce of the NRC to take this question as a slight.

* Do you believe there is value in having an independent assessment of nuclear power safety in the United States?

Design Basis Reassessment

Chairman Jaczko, in the past four years there has been earthquakes in Japan that have exceeded the design basis for nuclear plants in the vicinity of the earthquakes.

* How confident are you that our design basis for U.S. plants is sufficient?

* Why were the Japanese so wrong on their assumptions of the possible maximum earthquake and tsunami events?

Relicensing not including seismic and tsunami

Chairman Jaczko, I understand from my trip to Diablo Canyon that the relicensing process does not include a review of seismic and tsunami threats. Rather that relicensing is focused more on the aging of materials and equipment. The plant operators and NRC personnel on the trip explained that seismic and tsunami issues are considered on a continuing basis and thus do not need to be part of the relicensing.

I find this a little confusing. I understand relicensing should consider aging of materials and equipment as 20 to 40 years have passed since the initial license. But our information relative to seismic and tsunami threats has also changed over this time.

* If seismic and tsunami issues are not considered during relicensing, what guarantee do we have that the NRC is adequately considering these issues at any other time?

* If not considered during relicensing, does the burden fall to the federal government to prove there is a need to modify the license due to seismic or tsunami information or does that burden get put on the plant operator?

David Decker

From: David Decker
Sent: Tuesday, March 29, 2011 1:06 PM
To: Joshua Batkin
Cc: Amy Powell; Rebecca Schmidt
Subject: ~~(SUO)~~ OIP Input on SAC Questions That May be Asked
Attachments: SAC QA.docx

Josh,
Attached is what OIP provided in response the "heads-up" questions that may be asked at tomorrow's hearing with the SAC Energy and Water. OIP wanted to make sure they also provided the paragraph below for context. EDO is also working on responses to the other parts of the "heads-up" questions.

David

Please note that one thing that is not covered in our responses is the Convention on Assistance in the Event of a Nuclear Accident or Radiological Emergency. A country has to make a formal request for assistance under this Convention in order for the IAEA to take a lead coordinating role. The Japanese have opted not to make such a request. It's important for the Chairman to know this technicality in the event of follow-up questions. We don't want to be critical of the Japanese - it's their sovereign decision to make. But we also need to be factually honest about the limitations of the IAEA's role.

XXXX-394

David Decker

From: Harves, Carolyn
Sent: Tuesday, March 29, 2011 12:57 PM
To: Decker, David
Subject: RE: Commissioner Svinicki's Comments on Draft Testimony for Hearing Before Senate Appropriations Subcommittee - March 30th

You're very welcome, David!

Carolyn

From: Decker, David
Sent: Tuesday, March 29, 2011 12:54 PM
To: Harves, Carolyn
Subject: RE: Commissioner Svinicki's Comments on Draft Testimony for Hearing Before Senate Appropriations Subcommittee - March 30th

Thanks Carolyn!

From: Harves, Carolyn
Sent: Tuesday, March 29, 2011 12:47 PM
To: Decker, David
Cc: Batkin, Joshua; Bubar, Patrice; Nieh, Ho; Sosa, Belkys; Powell, Amy; Reddick, Darani; Davis, Roger; Sharkey, Jeffry
Subject: Commissioner Svinicki's Comments on Draft Testimony for Hearing Before Senate Appropriations Subcommittee - March 30th

Commissioner Svinicki's comments on the Draft Testimony for the Hearing Before the Senate Appropriations Subcommittee on Energy and Water Development in Light of Events in Japan are attached.

Thank you,
Carolyn

Carolyn S. Harves
Administrative Assistant
Office of Commissioner Svinicki
U.S. Nuclear Regulatory Commission
Washington, DC 20555
Carolyn.Harves@nrc.gov
301-415-1850

XXXX'395

From: LIA04 Hoc
Sent: Tuesday, March 29, 2011 1:15 PM
To: WAFROH@GMAIL.COM
Subject: FW: COMMUNICATIONS WITH EPA

Importance: High

fyi

From: LIA04 Hoc
Sent: Tuesday, March 29, 2011 1:12 PM
To: Easson, Stuart; Flannery, Cindy; LIA04 Hoc; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtil, Richard; Virgilio, Rosetta
Cc: LIA08 Hoc; LIA06 Hoc; LIA01 Hoc; LIA11 Hoc; Hoc, PMT12; OST05 Hoc; LIA04 Hoc; PMT01 Hoc
Subject: COMMUNICATIONS WITH EPA
Importance: High

I was directed by the PMT (Dr. Cool) to contact Mr. Ray Clark (202-329-5683)of EPA to follow-up on a question raised at the 1100 Radiological Status & Implications Call. During the call, industry asked whether the States were coordinating environmental monitoring information with the NRC. I confirmed to EPA that the State information was being coordinated with EPA staff (Edward Tupin).

Mr. Clark indicated that since EPA staff on the Japan event rotate, EPA would like us to send any future environmental information to: EOC_Environmental_Unit@epamail.epa.gov. He asked how NRC was coordinating the Japan event with the States. I informed him of the following NRC/State interaction methods on the issue: (1) NRC Regional State Officers; (2) all state letters; and (3) Tuesday and Thursday HHS hosted conference calls.
In addition, Mr. Clark indicated that if a State would like to contact EPA directly, they should contact an EPA regional office.

XXXV-396

Schaperow, Jason

From: Schaperow, Jason
Sent: Tuesday, March 29, 2011 4:38 PM
To: 'kcw@dycoda.com'; 'mtl@dycoda.com'
Subject: FW: Please review attached slides. Thanks.
Attachments: Source Term provided to Ops Center PMT.pptx

Importance: High

From: Schaperow, Jason
Sent: Tuesday, March 29, 2011 1:20 PM
To: Gauntt, Randall O
Subject: FW: Please review attached slides. Thanks.
Importance: High

If you could handle the request below today, it would be much appreciated. The reason for the hurry is twofold:

- The longer it takes, the more we will forget what we did on 3/18/11.
- There is an open meeting of the NRC's Commission (i.e., Chairman Jaczko and the 4 other Commissioners) on 4/14/11 on the Fukushima accident, and one of the topics is likely to be source term and dose estimation.

From: Schaperow, Jason
Sent: Tuesday, March 29, 2011 11:31 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles
Subject: Please review attached slides. Thanks.
Importance: High

Hi Randy,

Charlie stated that we need to have some slides documenting the source terms we gave to the Ops Center on the evening of March 18. To fulfill this need, I developed some slides, which are attached. Please review the attached slides for accuracy.

Also, there are 2 places in the slides that I need your help to fill in information. Specifically, what are the title and date of the report that the P6 SFP source term was taken from? Also, which Peach Bottom unmitigated LTSBO case was used for the reactor source term?

Thanks,
Jason

XXXX-29

Source Term provided to Ops Center PMT by RES/Sandia on 3/18/11

Spent Fuel Pool

- During the 1500 to 2300 shift on 3/18/11, PMT requested RST Severe Accident Analyst to provide a source term for each of the spent fuel pools at the four reactors at Fukushima Daiichi that lost AC power, Units 1, 2, 3, and 4
- The PMT asked the SA Analyst to assume that the water was lost from all 4 spent fuel pools
- The SA Analyst and SNL provided the PMT with the source terms described on the following slides

Spent Fuel Pool

	Pool Inventory - Curies				Released Inventory - Curies				
	292	587	514	1207	Release Duration	16hr	16hr	16hr	8hr
					Plume Energy (MW)	0.48	0.97	0.85	3.50
Isotope	Unit 1	Unit 2	Unit 3	Unit 4	release fraction	Unit 1	Unit 2	Unit 3	Unit 4
pu241	6.00E+06	1.21E+07	1.06E+07	2.54E+07	0.00005	3.00E+02	6.03E+02	5.28E+02	1.27E+03
cm242	4.09E+05	8.21E+05	7.19E+05	5.03E+06	0.00005	2.04E+01	4.11E+01	3.60E+01	2.52E+02
cm244	2.98E+05	5.99E+05	5.24E+05	1.25E+06	0.00005	1.49E+01	2.99E+01	2.62E+01	6.27E+01
kr 85	6.57E+05	1.32E+06	1.16E+06	2.81E+06	0.9	5.91E+05	1.19E+06	1.04E+06	2.52E+06
sr 89	2.76E+04	5.55E+04	4.86E+04	1.17E+07	0.01	2.76E+02	5.55E+02	4.86E+02	1.17E+05
sr 90	5.69E+06	1.14E+07	1.00E+07	2.38E+07	0.01	5.69E+04	1.14E+05	1.00E+05	2.38E+05
y 90	5.69E+06	1.14E+07	1.00E+07	2.38E+07	0.00005	2.85E+02	5.72E+02	5.01E+02	1.19E+03
y 91	9.57E+04	1.92E+05	1.68E+05	1.96E+07	0.00005	4.79E+00	9.62E+00	8.42E+00	9.78E+02
zr 95	2.37E+05	4.76E+05	4.16E+05	3.25E+07	0.00005	1.18E+01	2.38E+01	2.08E+01	1.63E+03
nb 95	5.18E+05	1.04E+06	9.12E+05	5.67E+07	0.25	1.30E+05	2.60E+05	2.28E+05	1.42E+07
ru103	8.78E+03	1.77E+04	1.55E+04	1.76E+07	0.01	8.78E+01	1.77E+02	1.55E+02	1.76E+05
rh103m	8.77E+03	1.76E+04	1.54E+04	1.76E+07	0.01	8.77E+01	1.76E+02	1.54E+02	1.76E+05
ru106	1.11E+07	2.23E+07	1.95E+07	6.86E+07	0.01	1.11E+05	2.23E+05	1.95E+05	6.86E+05
rh106	1.11E+07	2.23E+07	1.95E+07	6.86E+07	0.01	1.11E+05	2.23E+05	1.95E+05	6.86E+05
cs134	6.99E+06	1.41E+07	1.23E+07	3.46E+07	0.5	3.50E+06	7.03E+06	6.15E+06	1.73E+07
cs137	8.04E+06	1.62E+07	1.42E+07	3.36E+07	0.5	4.02E+06	8.09E+06	7.08E+06	1.68E+07
ba137m	7.59E+06	1.53E+07	1.34E+07	3.18E+07	0.01	7.59E+04	1.53E+05	1.34E+05	3.18E+05
ce141	1.28E+03	2.58E+03	2.26E+03	1.10E+07	0.00005	6.41E-02	1.29E-01	1.13E-01	5.48E+02
ce144	1.38E+07	2.77E+07	2.43E+07	9.88E+07	0.00005	6.89E+02	1.39E+03	1.21E+03	4.94E+03
pr144	1.38E+07	2.77E+07	2.43E+07	9.88E+07	0.00005	6.89E+02	1.39E+03	1.21E+03	4.94E+03
pr144m	1.93E+05	3.88E+05	3.40E+05	1.38E+06	0.00005	9.65E+00	1.94E+01	1.70E+01	6.91E+01
pm147	6.55E+06	1.32E+07	1.15E+07	3.11E+07	0.00005	3.27E+02	6.58E+02	5.76E+02	1.56E+03
I131	0.00E+00	0.00E+00	0.00E+00	7.92E+03	0.5	0.00E+00	0.00E+00	0.00E+00	3.96E+03
Total	9.88E+07	1.99E+08	1.74E+08	7.16E+08					

This information came from Origen results provided by GE for unit 4. Unit 4 has 100 day and 500 day fuel.

Source term for units 1, 2 and 3 were based on the curies per assembly for 500-day offload fuel.

Source term for Unit 4 is a mix of 100 and 500 day offload fuels.

Spent Fuel Pool

- Number of assemblies in each pool and decay times provided to NRC/Sandia by GE
  - Unit 1 – 292 @ 500 days of decay
  - Unit 2 – 587 @ 500 days of decay
  - Unit 3 – 514 @ 500 days of decay
  - Unit 4 – 1207 (542 at 100 days of decay and 665 at 500 days of decay)

Spent Fuel Pool

- Inventory of each isotope in each pool
  - Unit 4
    - Inventory provided to NRC/Sandia by GE.
    - GE estimates developed using ORIGEN assuming that 542 assemblies had 100 days of decay and 665 had 500 days of decay.
    - GE provided separate inventory data for the 2 groups of fuel.
  - Unit 1, 2, 3
    - NRC/Sandia estimated inventory by multiplying Unit 4 500-day-decayed fuel inventory by the ratio of assemblies
    - Unit 1 – 292/542
    - Unit 2 – 587/542
    - Unit 3 – 514/542

Spent Fuel Pool

- Release fraction
  - Taken directly from Case P6 of report XXX dated YYY
- Plume energy assumed to be equal to decay power. Decay power estimates for each pool provided to NRC/Sandia by GE
  - Unit 1 – 0.48 MW
  - Unit 2 – 0.97 MW
  - Unit 3 – 0.85 MW
  - Unit 4 – 3.5 MW
- Plume duration
  - Unit 4 – Value of 8 hours taken directly from Case P6 of report XXX dated YYY
  - Units 1, 2, 3 – Value of 16 hours estimated by doubling the value of 8 hours on the basis that the release would occur over a longer period of time than Unit 4, because the spent fuel pools had lower decay power than Unit 4

Reactor

- During the 1500 to 2300 shift on 3/18/11, PMT requested RST Severe Accident Analyst to provide a source term for each of the three reactors at Fukushima Daiichi that lost AC power, Units 1, 2, 3
- The PMT asked the SA Analyst to assume that each of the three reactors had lost cooling and undergone a severe core damage event with release to the environment
- The SA Analyst and SNL provided the PMT with the source terms described on the following slides

Reactor

	Release Fraction	Duration (hr)
Xe	0.978	0.5
Cs	0.018	0.5
Ba	0.006	0.5
I	0.037	0.5
Te	0.024	0.5
Ru	0	0.5
Mo	0.004	0.5
Ce	0.001	0.5
La	0	0.5

Reactor

- Release fractions
  - From the Peach Bottom unmitigated LTSBO modeled in SOARCA
  - Taken directly from Case X of report XXX dated YYY.
- Release duration
  - 0.5 hours chosen to represent the main part of the release which occurred in the 0.5 hours immediately after drywell shell melt-through

Bano, Mahmooda

From: Hochevar, Albert R. (INPO) [HochevarAR@INPO.org] Rel
Sent: Tuesday, March 29, 2011 1:13 AM
To: Miller, Marie; Jackson, Todd; Scott, Michael
Subject: FW: INPO Questions and Information for WANO-TC 29 March 2011
Attachments: PU Sample Analysis img-329094900.pdf; PU Sample Map img-329095434.pdf; Air Sample Analysis img-329102021.pdf

Sample results.
Al

From: Spinnato, Roger E (WANO)
Sent: Monday, March 28, 2011 9:28 PM
To: INPO EmergencyResponseCtr (INPO); Tsuchihashi; hal.s@wano-tc.or.jp; KIM, Hak-Jin; iwaki@wano-tc.or.jp
Cc: Cockrell@wanocc.org; Felgate@wanocc.org; Gambone, Robert L (INPO); Lemke, Mark S. (INPO); Maddox, James E. (INPO); Crawford, Ronald D (INPO); Kassner, Greg T (WANO); Ryan, Robert D (WANO); Hochevar, Albert R. (INPO); Farr, David M (WANO)
Subject: RE: INPO Questions and Information for WANO-TC 29 March 2011

Attached are the materials in respones to the March 29 questions.

Roger Spinnato

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Thank you.

XXXX-398

The result of the nuclide analysis of radioactive materials in the air at the site of Fukushima Daiichi Nuclear Power Station

The result of the nuclide analysis of radioactive materials in the air in the site of Fukushima Daiichi Nuclear Power Station is as follows.

1. Conditions of collection and measurement

Collection of sample	Place	Fukushima Daiichi: Main gate		
	Date	3/27 2:00～2:20		
	Manner of Collection	Collecting dust by monitoring cars		
	Wind direction & speed	S 0.5m/s (2:00)		
Measurement of sample	Date	3/27 11:38～		
	Measuring method	Brought the sample to Fukushima Daini Nuclear Power Station and analyzed it by the analysis device of Germanium semi-conductor type nuclide		
	Measuring time	500s		

2. Result

(Data collected on March 28th)

	Nuclide	Collected on March 27th									③Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm3)※
		①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)							
Volatile characteristics	Co-58	-	-	-							1.0E-02
	I-131	4.5E-04	8.2E-06	0.45							1.0E-03
	I-132	1.8E-04	1.3E-04	0.00							7.0E-02
	I-133	-	-	-							5.0E-03
	Cs-134	1.2E-05	6.4E-06	0.01							2.0E-03
	Cs-136	-	-	-							1.0E-02
	Cs-137	1.4E-05	6.2E-06	0.00							3.0E-03
Particulate characteristics	Co-58	-	-	-							1.0E-02
	I-131	2.1E-04	9.5E-06	0.21							1.0E-03
	I-132	-	-	-							7.0E-02
	Cs-134	1.6E-05	8.8E-06	0.01							2.0E-03
	Cs-136	-	-	-							1.0E-02
	Cs-137	1.4E-05	9.5E-06	0.00							3.0E-03
Other detected nuclide	Te-129	2.6E-02	2.2E-02	0.07							4.0E-01
	Te-129m	1.9E-04	1.5E-04	0.05							4.0E-03
	Te-132	1.2E-04	5.7E-06	0.02							7.0E-03

※ Statutory density limit to the 3-month average density of radioactive nuclide contained in the air that humans breathe

※ X.XE−X means $X.X \times 10^{-x}$

The result of the nuclide analysis of radioactive materials in the air at the site of Fukushima Daini Nuclear Power Station

The result of the nuclide analysis of radioactive materials in the air at the site of Fukushima Daini Nuclear Power Station is as follows.

1. Conditions of collection and measurement

Collection of sample	Place	Fukushima Daini MP-1	Fukushima Daini MP-1
	Date	3/27 10:52～11:00	3/27 17:02～17:10
	Manner of Collection	Collecting dust by monitoring cars	Collecting dust by monitoring cars
	Wind direction & speed	—	—
Measurement of sample	Date	2011/3/27 11:56～	2011/3/27 18:03～
	Measuring method	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis
	Measuring time	500s	500s

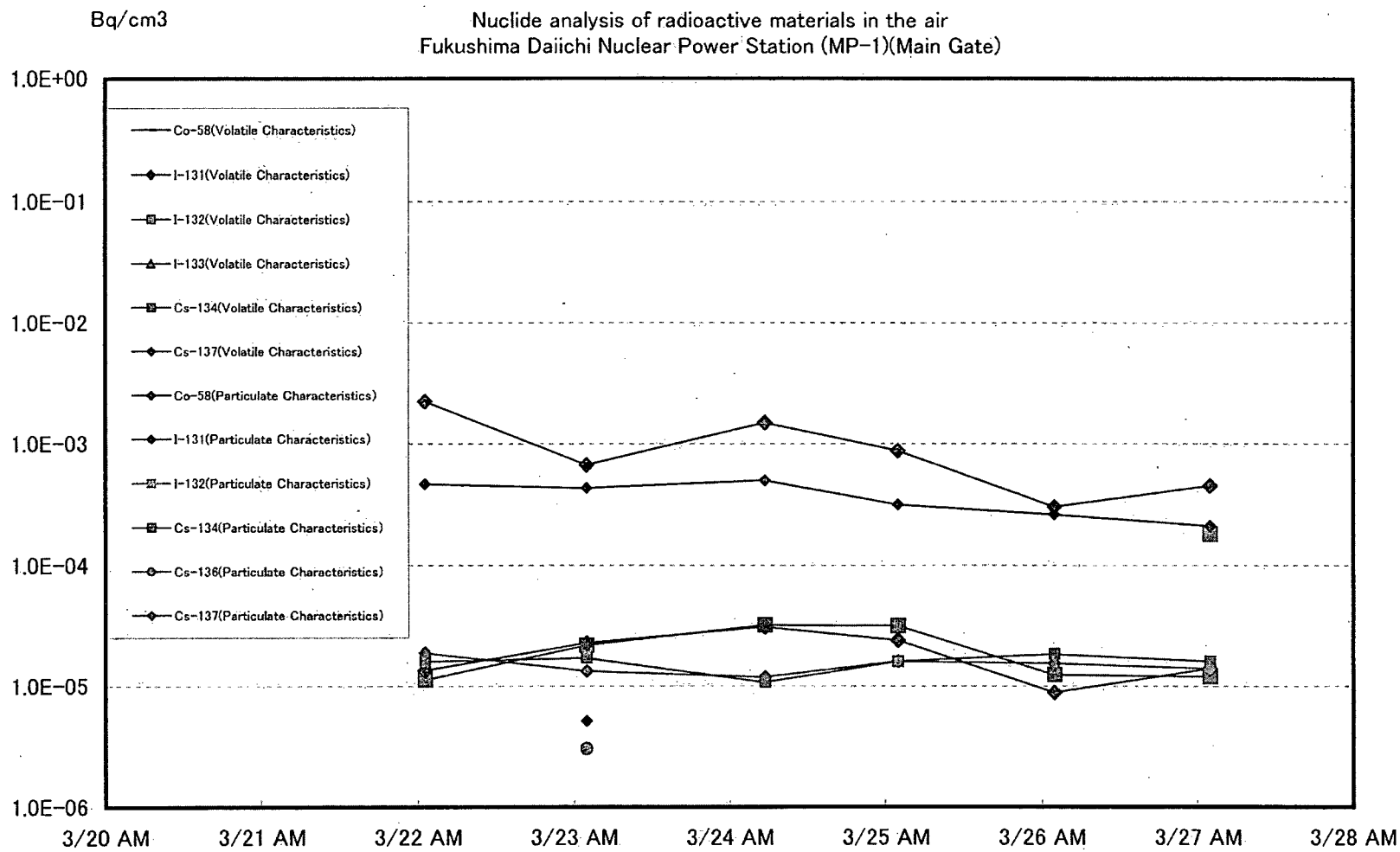
2. Result

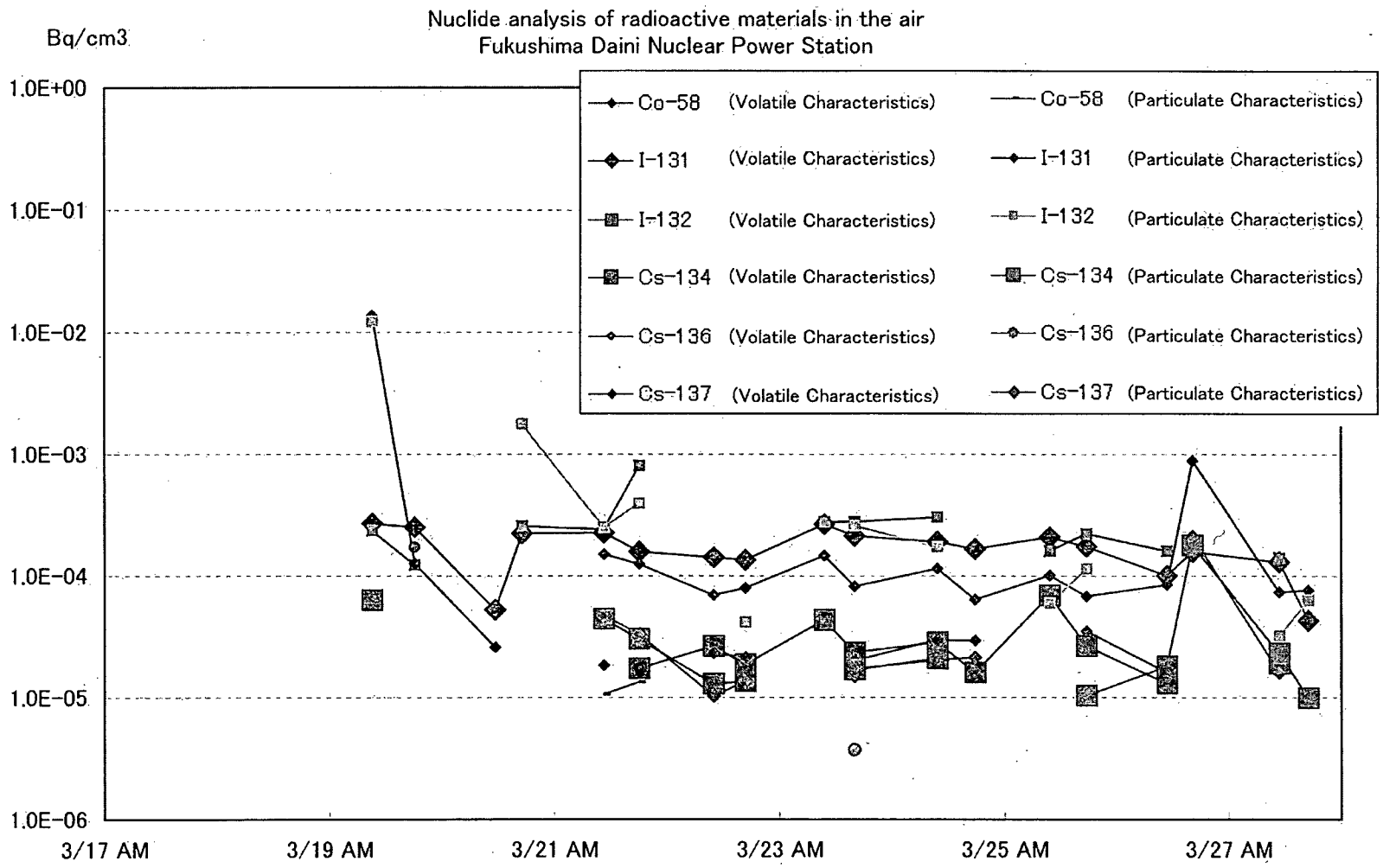
collected on Mar 28th 2011

	Nuclide	Collected on Mar 27th①			Collected on Mar 27th②			③Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm3) ※
		① Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①／③)	① Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①／③)	
Volatile characteristics	Co-58	–	–	–	–	–	–	1.0E-02
	I-131	1.3E-04	1.3E-05	0.13	4.3E-05	1.9E-05	0.04	1.0E-03
	I-132	1.4E-04	1.6E-05	0.00	–	–	–	7.0E-02
	I-133	–	–	–	–	–	–	5.0E-03
	Cs-134	1.9E-05	1.0E-05	0.01	–	–	–	2.0E-03
	Cs-137	1.9E-05	9.5E-06	0.01	–	–	–	3.0E-03
Particulate characteristics	Co-58	–	–	–	–	–	–	1.0E-02
	I-131	7.3E-05	1.6E-05	0.07	7.6E-05	6.4E-06	0.08	1.0E-03
	I-132	3.2E-05	2.7E-05	–	6.3E-05	8.8E-06	0.00	7.0E-02
	Cs-134	2.3E-05	1.5E-05	0.01	9.9E-06	5.7E-06	0.00	2.0E-03
	Cs-136	–	–	–	–	–	–	1.0E-02
	Cs-137	1.6E-05	1.6E-05	0.01	–	–	–	3.0E-03
Other detected nuclide	Te-129	2.6E-04	2.2E-04	0.00	2.1E-04	1.1E-04	0.00	4.0E-01
	Te-129m	3.3E-04	2.2E-04	0.08	1.2E-04	1.1E-04	0.03	4.0E-03
	Te-132	1.9E-04	7.8E-06	0.03	7.5E-05	3.7E-06	0.01	7.0E-03

※ Statutory density limit to the 3-month average density of radioactive nuclide contained in the air that humans breathe

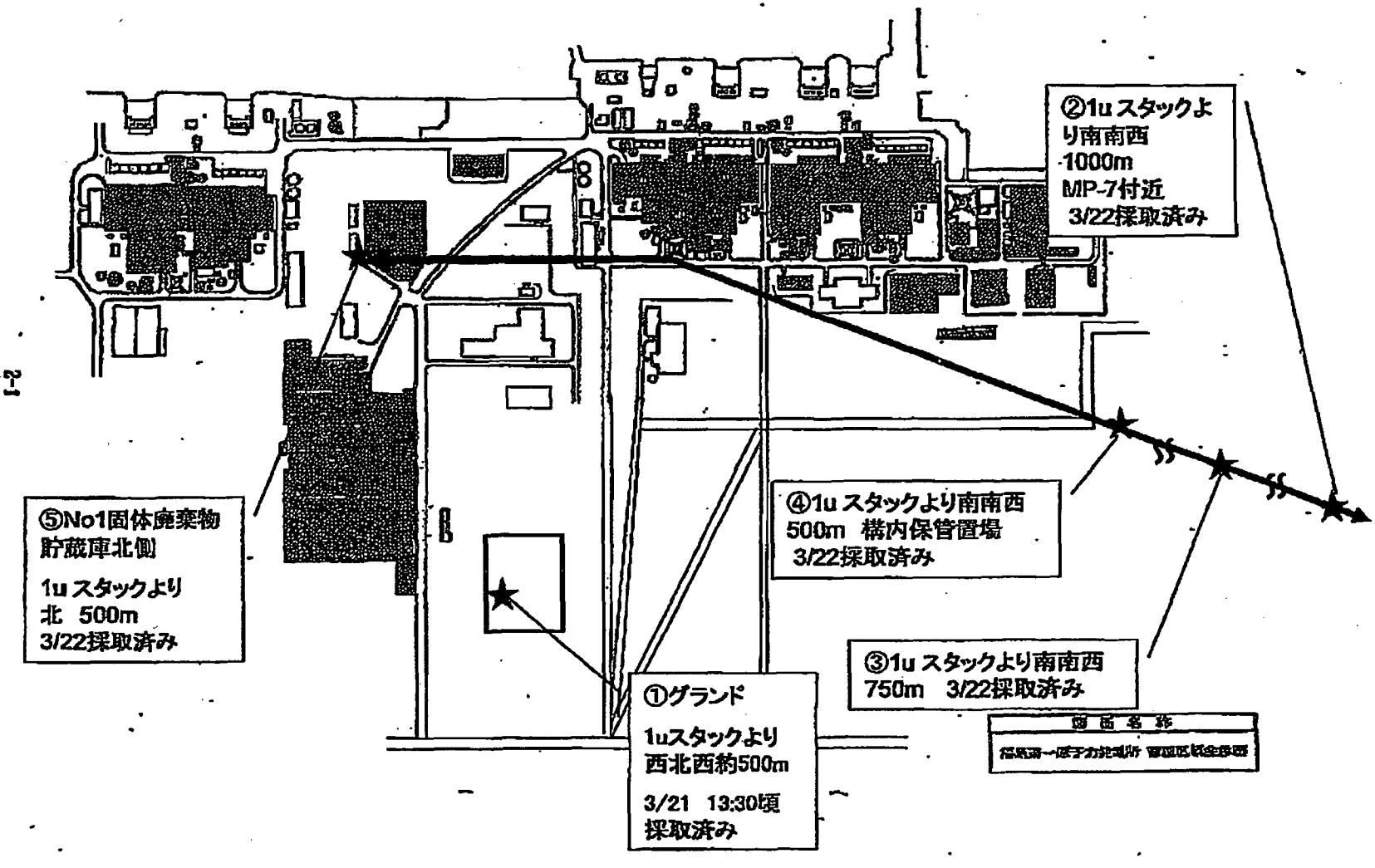
※ X.XE−X means X.X x 10^{-x}


Bq/cm3
Nuclide analysis of radioactive materials in the air
Fukushima Daiichi Nuclear Power Station (MP-1)(Main Gate)
1.0E+00
1.0E-01
1.0E-02
1.0E-03
1.0E-04
1.0E-05
1.0E-06
Co-58(Volatile Characteristics)
I-131(Volatile Characteristics)
I-132(Volatile Characteristics)
I-133(Volatile Characteristics)
Cs-134(Volatile Characteristics)
Cs-137(Volatile Characteristics)
Co-58(Particulate Characteristics)
I-131(Particulate Characteristics)
I-132(Particulate Characteristics)
Cs-134(Particulate Characteristics)
Cs-136(Particulate Characteristics)
Cs-137(Particulate Characteristics)
3/20 AM
3/21 AM
3/22 AM
3/23 AM
3/24 AM
3/25 AM
3/26 AM
3/27 AM
3/28 AM


Nuclide analysis of radioactive materials in the air
Fukushima Daini Nuclear Power Station
Bq/cm3
1.0E+00
1.0E-01
1.0E-02
1.0E-03
1.0E-04
1.0E-05
1.0E-06
3/17 AM
3/19 AM
3/21 AM
3/23 AM
3/25 AM
3/27 AM
Co-58 (Volatile Characteristics)
I-131 (Volatile Characteristics)
I-132 (Volatile Characteristics)
Cs-134 (Volatile Characteristics)
Cs-136 (Volatile Characteristics)
Cs-137 (Volatile Characteristics)
Co-58 (Particulate Characteristics)
I-131 (Particulate Characteristics)
I-132 (Particulate Characteristics)
Cs-134 (Particulate Characteristics)
Cs-136 (Particulate Characteristics)
Cs-137 (Particulate Characteristics)

参考資料

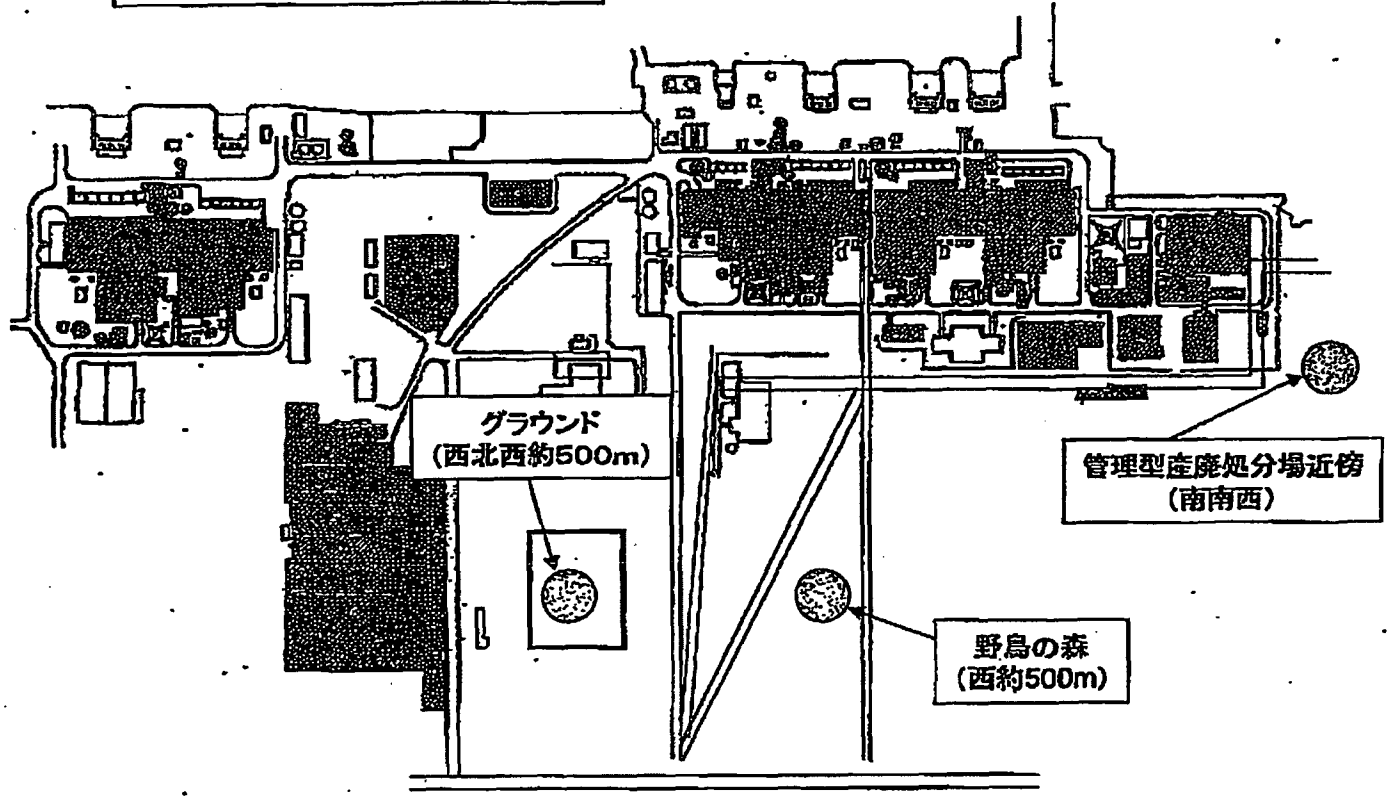
福島第一原子力発電所　敷地内土壌サンプリング



参考資料

福島第一原子力発電所　敷地内土壌サンプリング（定例3箇所）

・1,2号機スタックを中心に、500m程度距離の地点を選定。
・土壌が広くサンプリングできる場所



図面名称
福島第一原子力発電所 敷地内土壌採取図

(Attachment)

Result of Pu measurement in the soil in Fukushima Daiichi Nuclear Power Plant

1. Result of the measurement

(Unit: Bq/kg•dry soil)

Sampling spot	Time of sampling	Pu-238	Pu-239,Pu-240
①site field	13:30, March 21st	$(5.4\pm0.62)\times10^{-1}$	$(2.7\pm0.42)\times10^{-1}$
②1km away from Unit 1/2 exhaust stack	7:00, March 22nd	N.D.	$(2.6\pm0.58)\times10^{-1}$
③ 0.75km away from Unit 1/2 exhaust stack	7:10, March 22nd	N.D.	1.2 ± 0.12
④0.5km away from Unit 1/2 exhaust stack	7:18, March 22nd	N.D.	1.2 ± 0.11
⑤solid waste storage	7:45, March 22nd	$(1.8\pm0.33)\times10^{-1}$	$(1.9\pm0.34)\times10^{-1}$
ordinary domestic soil※		N.D.～1.5×10^{-1}	N.D.～4.5

※ :MEXT environmental radiation database; 1978-2008

2. Analysis

Density of detected Pu-238, Pu-239 and Pu-240 are within the same level of the fallout observed in Japan after the atmospheric nuclear test in the past. Activity ratio of Pu-238 detected in site field and solid waste storage against Pu-239 and Pu-240 are 2.0 and 0.94 respectively. They exceed activity ratio of 0.026 which resulted from the atmospheric nuclear test in the past, thus those Pus are considered to come from the recent incident.