
From: Milligan, Patricia
Sent: Wednesday, April 06, 2011 10:59 AM
To: Merzke, Daniel
Subject: RE: Re-Entry Criteria around Fukushima

Yes it has gone thru the ET and PMT

From: Merzke, Daniel
Sent: Wednesday, April 06, 2011 10:48 AM
To: Milligan, Patricia
Subject: Re-Entry Criteria around Fukushima

Trish, I tried to show Mike Weber the paper, and he asked if it had been vetted through the Ops Center, yet. I couldn't answer that. He wants to make sure Jim Wiggins has seen it before he reviews. Please let me know. Thanks.

Dan

CA/113

From: Milligan, Patricia
Sent: Wednesday, April 06, 2011 9:43 AM
To: Merzke, Daniel
Subject: FW: Permanent re-entry criteria for Japan

From: Bentz, Julie A. (b)(6)
Sent: Thursday, March 31, 2011 6:34 PM
To: Veal.Lee@epamail.epa.gov; Perciasepe.Bob@epamail.epa.gov
Cc: Dietrich.Debbie@epamail.epa.gov; Milligan, Patricia
Subject: RE: Permanent re-entry criteria for Japan

Lee,

I'm hearing that Heidi will call another Deputies during the week of April 11th and would like an answer at that time. Trish Milligan from NRC is your POC for the temporary reentry guidance that was recently released. I've cc'd her here. She should be able to put you in with the right folks on this morning's expansion as well.

Thanks!
Julie

From: Veal.Lee@epamail.epa.gov [mailto:Veal.Lee@epamail.epa.gov]
Sent: Thursday, March 31, 2011 8:34 AM
To: Bentz, Julie A.; Perciasepe.Bob@epamail.epa.gov
Cc: Dietrich.Debbie@epamail.epa.gov
Subject: Re: Permanent re-entry criteria for Japan

Julie,

What is your timing for this one?

Also, is NRC also the best contact for this morning's Japanese expansion of their evacuation zone? Or do you have a State expert?

Lee
Lee B. Veal
Director, Center for Radiological Emergency Response
Radiation Protection Division
U.S. Environmental Protection Agency
Office 202 343 9448
Cell (b)(6)

From: "Bentz, Julie A." (b)(6)
Sent: 03/30/2011 07:12 PM AST
To: Bob Perciasepe

CA/114 |

Cc: #RESILIENCE <#RESILIENCE@dsr.eop.gov>; Debbie Dietrich; Lee Veal
Subject: Permanent re-entry criteria for Japan

Bob

(b)(5)

Thanks!
Julie

COL(P) Julie A Bentz
Director for Nuclear Defense Policy
National Security Staff
EEOB 379
1650 Pennsylvania Ave NW
Washington DC 20502

(b)(6)

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 12:52 PM
To: Wiggins, Jim; McDermott, Brian; Morris, Scott; Marshall, Jane
Subject: Permanent reentry guidance
Attachments: permanent reentry guidance.docx

Attached is the guidance that EPA and NRC staffs developed as the suggested guidelines for permanent re-entry for US citizens in Japan. This will be presented at the Deputies meeting on April 11 rather than the PLE paper. General acceptance of this guidance may better inform the discussions for the PLE reentry criteria discussion. The guidelines as attached do suggest a "how safe is safe" value for long term re-entry. We will telecon again tomorrow (Wed) am to clear up any issues that either NRC or EPA management has with the attached.

Trish

CA/115

(b)(5)

(b)(5)

(b)(5)

(b)(5)

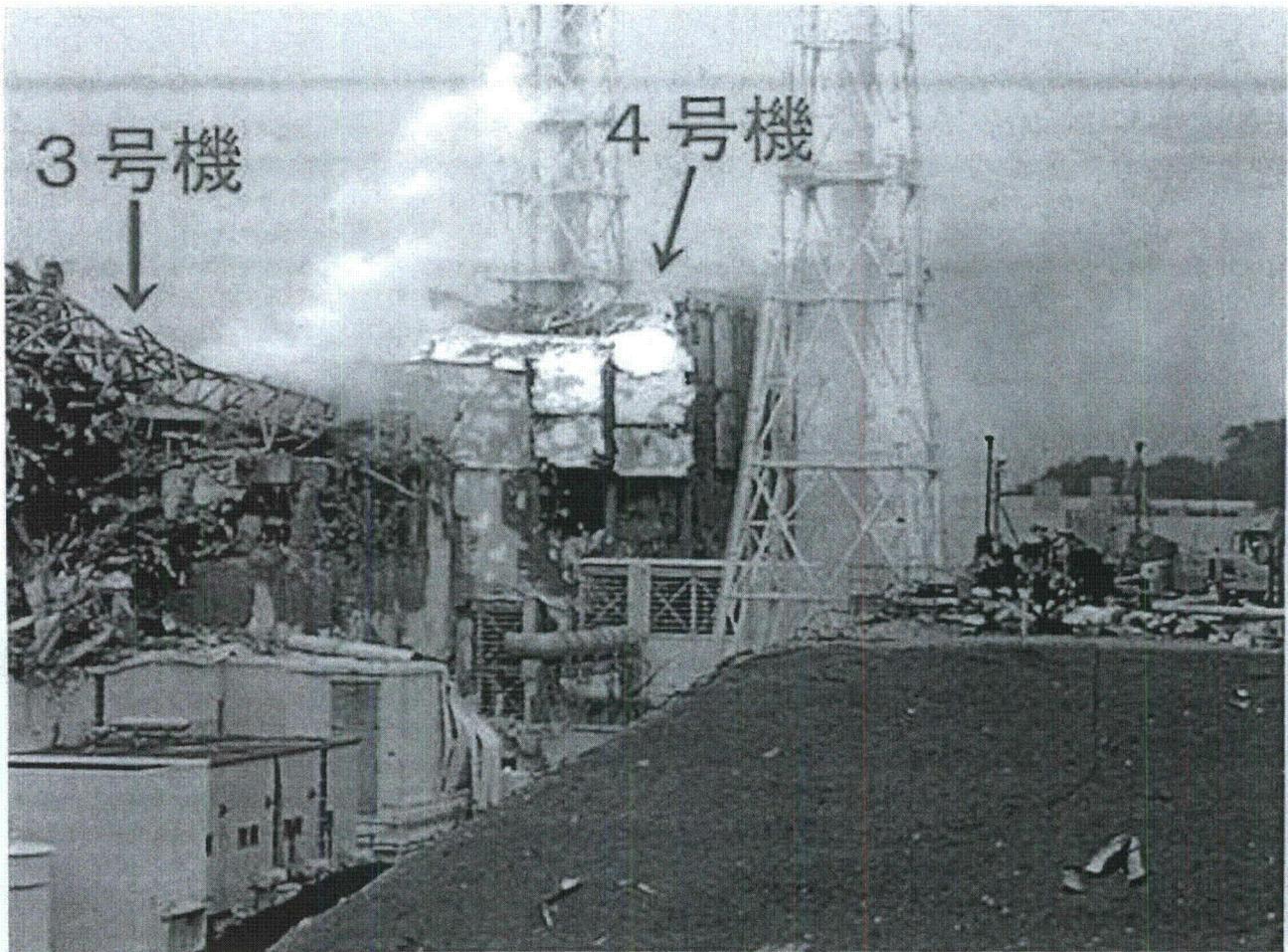
From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 12:44 PM
To: Jim Hardeman
Subject: RE: PARs
Attachments: EP RIS Changes in EP.pdf; RIS 2004-13 SUP1.pdf; image005.jpg; image006.jpg

Jim

(b)(5)

(b)(5)

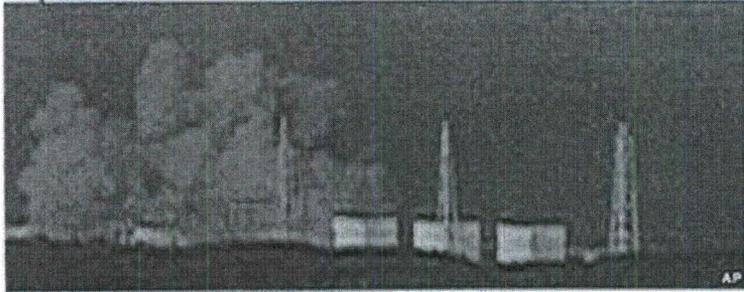
CA/116



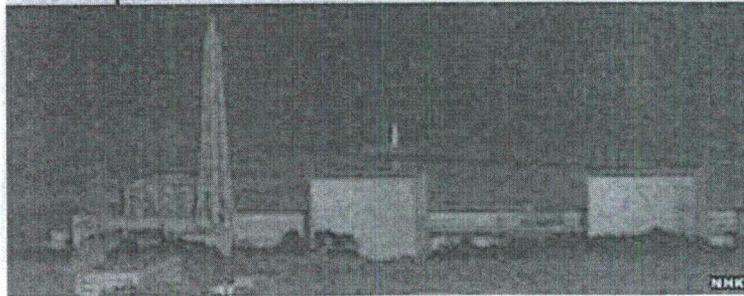
After earthquake 11 March



Explosion 0630 GMT 12 March



After explosion 0730 GMT



Fukushima plants



From: Jim Hardeman [mailto:Jim.Hardeman@dnr.state.ga.us]
Sent: Tuesday, April 05, 2011 11:26 AM
To: Milligan, Patricia
Subject: Re: PARs

Trish --

Thanks for your note.

(b)(5)

(b)(5)

Jim

>>> "Milligan, Patricia" <Patricia.Milligan@nrc.gov> 4/5/2011 09:22 >>>

Jim,

I saw your REP planners post and thought I would offer these thoughts for your consideration.

Trish

The decision process:

There are a number of factors that went into the decision to expand the evacuation to 50 miles.

1. There was limited, confusing and, at times, conflicting information regarding plant conditions and what was unfolding at the site.
2. There were 4 "cores" in trouble- units 1-3 and unit 4 was in a refueling outage and in Japan this meant a full-core offload into the spent fuel pool so there was "fresh" fuel in the pool.
3. There had been explosions- likely hydrogen explosions that had done significant damage to some of the reactor buildings and the fate of important safety systems was unknown. You couldn't see the spent fuel pools under the piles of rubble when examining the aerial photographs- was there water in those pools? And for how much longer? How was water going to get into those pools?
4. There were reports of high dose rates on site indicating that spent fuel in spent fuel pool 4 was likely uncovered.
5. There were high dose rates from downwind fixed monitoring points at the facility.
6. The meteorology was shifting from out to sea to on land.

With all of the uncertainties and faced with the reality that 3 out of six units were in serious trouble and at least two spent fuel pools were also in trouble, the NRC staff spent hours working on possible scenarios and developed an aggregate core model which showed significant doses out beyond the 30 km evacuation zone. Recognizing that the calculations were conservative but also recognizing that the conditions were very unstable and unknown, the recommendation was made to expand the evacuation to 50 miles. The data from the early flyovers by DOE assets showed doses exceeding the EPA relocation PAGs almost to 30 miles. When one is asked to shelter indoors for an extended period of time, the contamination indoors can quickly exceed that out of doors resulting in higher dose rates indoors where you are sheltering rather than out of doors. Would this be a preferred option?

As you know, the NRC works closely with its Federal, State and local partners to ensure a high level of preparedness and response. This includes during full scale exercises, supporting States on their protective action recommendations. As stated earlier, the NRC has full access to information as to exactly what is happening on site, not trying to "guess" from 7,000 miles away based on limited, and at times, conflicting data. It is not uncommon for foreign governments to make more conservative recommendations for their citizens - as foreign governments have no ability to affect the crisis but can only affect the safety of their citizens.

The recommendation to evacuate to 50 miles was and remains a prudent decision.

From the NRC public blog

<http://public-blog.nrc-gateway.gov/page/2/>

The advisory to evacuate to 50 miles was based on calculations done by NRC experts indicating releases from the three hobbled Japanese reactors and two fuel pools could - and a key word here is could - possibly exceed conservatively set safe radiation-exposure limits for the public. This advisory was made using limited data and conservative assumptions.

On its face, this recommendation seems to be at odds with the size used for American EPZs. In fact, it was consistent with the same kind of approach that would be used in the United States should a comparable, although extremely unlikely, event take place here.

In November 1976, a federal task force was formed to look at salient emergency planning issues for U.S. nuclear power plants. Out of that comprehensive evaluation came a recommendation that a 10-mile-radius EPZ would assure that "prompt and effective actions can be taken to protect the public in the event of an accident" at a plant. This was based on research showing the most significant impacts of an accident would be expected in the immediate vicinity of a plant and therefore any initial protective actions, such as evacuations or sheltering in place, should be focused there.

Put another way, the projected radiation levels would not be expected to exceed EPA protective action dose guidelines (1 rem to the body or 5 rem to the thyroid) beyond 10 miles under most accident scenarios.

That does not mean the protective actions could not expand beyond the 10-mile radius. Rather, emergency planners have always known such actions could be necessary if the situation warranted it. Indeed, U.S. nuclear power plants are required to consider and drill for the possibility of radiation releases that could have impacts up to 50 miles away, in addition to the required biennial exercises conducted in the vicinity of each nuclear power plant to assess implementation of the emergency plan within the 10-mile EPZ. Once every six years, each plant takes part in an exercise graded by the NRC and FEMA to demonstrate how it would handle such an event.

As the document [NUREG 0654/FEMA-REP-1](#) on emergency planning states "In a particular emergency, protective actions might well be restricted to a small part of the planning zone. On the other hand, for the worst possible accidents, protective actions would need to be taken outside the planning zones." (This joint document is the basis for emergency planning around nuclear power plants and adds background to our regulations found in [10CFR 50.47](#).)

The Japanese have been confronted with extremely challenging circumstances wrought by a record earthquake followed by a massive tsunami. As the NRC carefully monitored developments there, the agency used the best information available to it to make a protective action recommendation to the U.S. Embassy in Tokyo for Americans within 50 miles of the six-reactor Japanese site, which was experiencing problems in four reactors and two spent fuel pools.

Were a similar accident to occur in the U.S., the response would be guided by the same considerations. But it is worth noting the United States has no nuclear complexes of this size.

Once the salient facts regarding the events at Fukushima Daiichi are made clear to the NRC, it intends to assess its own regulations and practices for any pertinent lessons learned that can be applied here. This will include an assessment of current emergency planning guidance and policy.

As the NRC carefully monitored developments there, the agency used the best information available to it to make a protective action recommendation.

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

August 2, 2004

**NRC REGULATORY ISSUE SUMMARY 2004-13
CONSIDERATION OF SHELTERING IN LICENSEE'S RANGE OF
PROTECTIVE ACTION RECOMMENDATIONS**

ADDRESSEES

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to clarify the regulatory requirement that licensees develop a range of protective actions that includes sheltering for the public in the plume exposure pathway emergency planning zone (EPZ). This RIS requires no action or written response on the part of addressees.

BACKGROUND INFORMATION

Section 50.47(b)(10) of Title 10 of the Code of Federal Regulations (CFR) states in part that licensees are to develop a range of protective actions for the public in the plume exposure pathway EPZ. In addition, 10 CFR 50.47(b)(10) states that in developing this range of protective actions, consideration is to be given to sheltering, and that the guidelines for the choice of protective actions be consistent with Federal guidance.

Following an inspection at Point Beach in August 2003 (ML040360104), the NRC staff performed a review of licensee emergency plans, implementing procedures, and notification forms to evaluate the extent licensees considered sheltering when recommending protective actions to offsite organizations. During the review, the NRC staff has noticed that licensee emergency plans, implementing procedures and notification forms consider sheltering in one of three ways: (1) sheltering as an alternative to evacuation (shelter rather than evacuate), (2) sheltering as a supplement to evacuation (evacuate downwind sectors and shelter the remaining sectors until further instructions are provided), and (3) sheltering is not considered by the licensee. The NRC staff has also noticed that some licensees have addressed sheltering inconsistently in their emergency plan, implementing procedures, and notification forms. For example, sheltering is considered as an alternative to evacuation in the emergency plan, but it is not included as an option in the implementing procedures or on the notification form.

ML041210046

DISCUSSION

The decision to recommend a protective action involves a judgment in which the radiation dose avoidance provided by the protective action is weighed in the context of the risks involved in taking the action. Since the decision will most likely be made under emergency conditions, considerable planning is necessary to reduce the complexity of decisions required to effectively protect the public at the time of an emergency.

Plant conditions are the major determining factors in developing early protective action recommendations. To be most effective, protective actions (evacuation or shelter) need to be taken before or shortly after the start of a major radioactive release to the atmosphere. According to the original version of Appendix 1, Emergency Action Level Guidelines for Nuclear Power Plants, in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," the initial protective action for a General Emergency is to shelter the population close to the plant while considering the advisability of evacuation. The guidance in the original version of Appendix 1 further states that if core damage is in progress and containment failure is judged to be imminent, shelter should be recommended for people in those areas that cannot be evacuated before the plume arrives. Although the original guidance was never intended to imply that the appropriate initial protective action for severe accidents was to only shelter the population that is near the plant, it was not explicit on this point.

Subsequently, portions of Appendix 1 were revised in Supplement 3 Criteria for Protective Action Recommendations for Severe Accidents, to NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." Revised Appendix 1 states that for a General Emergency, the preferred initial protective action is to evacuate immediately about two miles in all directions from the plant and about five miles downwind, unless other conditions make evacuation dangerous. Note 5 to Figure 1, Severe Damage or Loss of Control of Facility Public Protective Actions, in Supplement 3, states that sheltering may be the appropriate action for controlled releases of radioactive material from the containment, if there is assurance that the release is short term (puff release) and the area near the plant cannot be evacuated before the plume arrives.

10 CFR 50.47(b)(10) requires that the consideration of sheltering be included in the range of protective action recommendations consistent with Federal guidance. In addition to the Federal guidance discussed above, EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Accidents (EPA 400), dated May 1992, also contains information on evacuation and sheltering. Section 5.5.3, General Guidance for Evacuation and Sheltering, states that the process of evaluating, recommending, and implementing evacuation or shelter for the public is far from an exact science, particularly in view of time constraints that prevent thorough analysis at the time of an emergency. The effectiveness of evacuation and shelter can be improved considerably by planning and testing. Also, EPA 400 states that sheltering may be appropriate (when available) for areas not designated for immediate evacuation because: 1) it positions the public to receive additional instructions; and 2) it may provide protection equal to or greater than evacuation.

SUMMARY OF ISSUE

The NRC staff has identified a generic misinterpretation of the regulatory requirement to include sheltering in a licensee's range of protective action recommendations (PARs) consistent with Federal guidance. The NRC staff has found that some emergency plans specifically state that the licensee will provide only evacuation as a PAR. In those cases, the appropriate protective action recommendation consistent with Federal guidance may not be made to State and/or local authorities. Even if the licensee has established an understanding with State and local authorities not to recommend a sheltering protective action, 10 CFR 50.47(b)(10) still requires that sheltering be considered in developing the range of protective action recommendations in the licensee's emergency plan.

Federal guidance states that sheltering may be the appropriate action for controlled releases of radioactive material from the containment, if there is assurance that the release is short term (puff release) and the area near the plant cannot be evacuated before the plume arrives. Federal guidance also states that sheltering may be appropriate (when available) for areas not designated for immediate evacuation because: 1) it positions the public to receive additional instructions; and 2) it may provide protection equal to or greater than evacuation. Additionally, a licensee's emergency plan, implementing procedures, and notification forms need to include the consideration of sheltering consistent with Federal guidance.

BACKFIT DISCUSSION

This RIS clarifies the regulatory requirements in 10 CFR 50.47(b)(10) related to the need for licensees to develop a range of protective actions (including sheltering) for the public in the plume exposure pathway EPZ. This RIS does not impose new or modified staff requirements or uniquely prescribe a way to comply with the regulations, or require any action or written response. Therefore, this RIS does not constitute a backfit under 10 CFR 50.109 and the staff did not perform a backfit analysis.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because this RIS is informational and pertains to a staff position that does not represent a *departure from current regulatory practice*.

PAPERWORK REDUCTION ACT STATEMENT

This RIS does not request any information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

If you have any questions about this matter, please contact Robert Kahler by telephone or by e-mail at the numbers listed below.

/RA/

Terrence Reis, Acting Chief
Reactor Operations Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

Technical Contact: Robert Kahler, NSIR
(301) 415-2992
Email: rek@nrc.gov

Attachment: List of Recently Issued Regulatory Issue Summaries

LIST OF RECENTLY ISSUED
NRC REGULATORY ISSUE SUMMARIES

Regulatory Issue Summary No.	Subject	Date of Issuance	Issued to
2004-12	Clarification on Use of Later Editions and Addenda to the ASME OM Code and Section XI	07/28/2004	All holders of operating licenses for nuclear power reactors except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.
2003-18, Supplement 1	Use of Nuclear Energy INSTITUTE (NEI) 99-01, "Methodology for Development of Emergency Action Levels," Revision 4, Dated January 2003	07/13/2004	All holders of operating licenses for nuclear power reactors and licensees that have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.
2004-11	Supporting Information Associated with Requests For Withholding Proprietary Information	06/29/2004	All submitters of proprietary information to the Nuclear Regulatory Commission.
2004-10	Preparation And Scheduling of Operator Licensing Examinations	06/14/2004	All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.
2004-09	Status on Deferral of Active Regulation of Ground-water Protection At In Situ Leach Uranium Extraction Facilities	06/07/2004	All holders of materials licenses for uranium and thorium recovery facilities.
2004-08	Results of the License Termination Rule Analysis	05/28/2004	All holders of operating licenses for nuclear power reactors, research and test reactors, as well as decommissioning sites.

Note: NRC generic communications may be received in electronic format shortly after they are issued by subscribing to the NRC listserver as follows:

To subscribe send an e-mail to <listproc@nrc.gov>, no subject, and the following command in the message portion:

subscribe gc-nrr firstname lastname

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

March 10, 2005

**NRC REGULATORY ISSUE SUMMARY 2004-13, SUPPLEMENT 1,
CONSIDERATION OF SHELTERING IN LICENSEE'S RANGE OF
PROTECTIVE ACTION RECOMMENDATIONS, DATED AUGUST 2004**

ADDRESSEES

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

INTENT

The Nuclear Regulatory Commission (NRC) is issuing this Regulatory Issue Summary (RIS) to supplement previously issued information in RIS 2004-13, "Consideration of Sheltering in Licensee's Range of Protective Action Recommendations," dated August 2, 2004. The NRC is confirming its position that licensees develop a range of protective actions that includes the consideration of sheltering, and will begin evaluating the use of enforcement action for licensees in noncompliance. This RIS requires no action or written response by an addressee.

BACKGROUND INFORMATION

The NRC issued RIS 2004-13 in August 2004 to clarify the regulatory requirement that licensees develop a range of protective actions that includes the consideration of sheltering for the public in the plume exposure pathway emergency planning zone (EPZ). The regulations governing protective action recommendations (PARs) are contained in 10 CFR 50.47(b)(10). RIS 2004-13 describes in detail the requirements regarding the consideration of sheltering as a PAR. The details of RIS 2004-13 remain applicable.

SUMMARY OF ISSUE

In RIS 2004-13, the NRC clarified its position that licensees shall develop a range of protective actions that includes the consideration of sheltering. In addition to the technical discussion in RIS 2004-13, the events of September 11, 2001 have caused the NRC to increase the focus on the range of protective actions appropriate in today's threat environment. The NRC has decided to use discretion and not take enforcement action for this issue for a period extending 90 days following the issuance of this supplement. This action is intended to give licensees sufficient time to evaluate this issue and update their emergency plans as necessary.

ML050340531

BACKFIT DISCUSSION

This RIS supplement confirms the regulatory requirement in 10 CFR 50.47(b)(10) that licensees develop a range of protective actions that includes the consideration of sheltering for the public in the plume exposure pathway EPZ. This RIS supplement does not impose new or modified staff requirements or uniquely prescribe a way to comply with regulations or require any action or written response. Therefore, the RIS supplement does not constitute a backfit under 10 CFR 50.109, and the staff did not perform a backfit analysis.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because it is informational and pertains to a staff position that does not represent a departure from current regulatory practice.

SMALL BUSINESS REGULATORY ENFORCEMENT FAIRNESS ACT OF 1996

The NRC has determined that this action is not subject to the Small Business Regulatory Enforcement Fairness Act of 1996.

PAPERWORK REDUCTION ACT NOTIFICATION

This RIS does not contain any information collections and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements are covered under 10 CFR Part 50 (3150-0011).

CONTACT

If you have any questions regarding this matter, please contact Nathan Sanfilippo using the telephone or email contact information listed below.

/RA/

Patrick L. Hiland, Chief
Reactor Operations Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

Technical Contact: Nathan T. Sanfilippo, NSIR
301-415-3951
email: nts1@nrc.gov

Note: NRC generic communications may be found on the NRC public website, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 10:56 AM
To: Sullivan, Randy
Subject: offsite consequences
Attachments: ACRS Template.pptx

Suggest that you contrast these two slides to discuss early and later on values to show changing landscape

Perhaps also discuss isotopic or lack thereof...

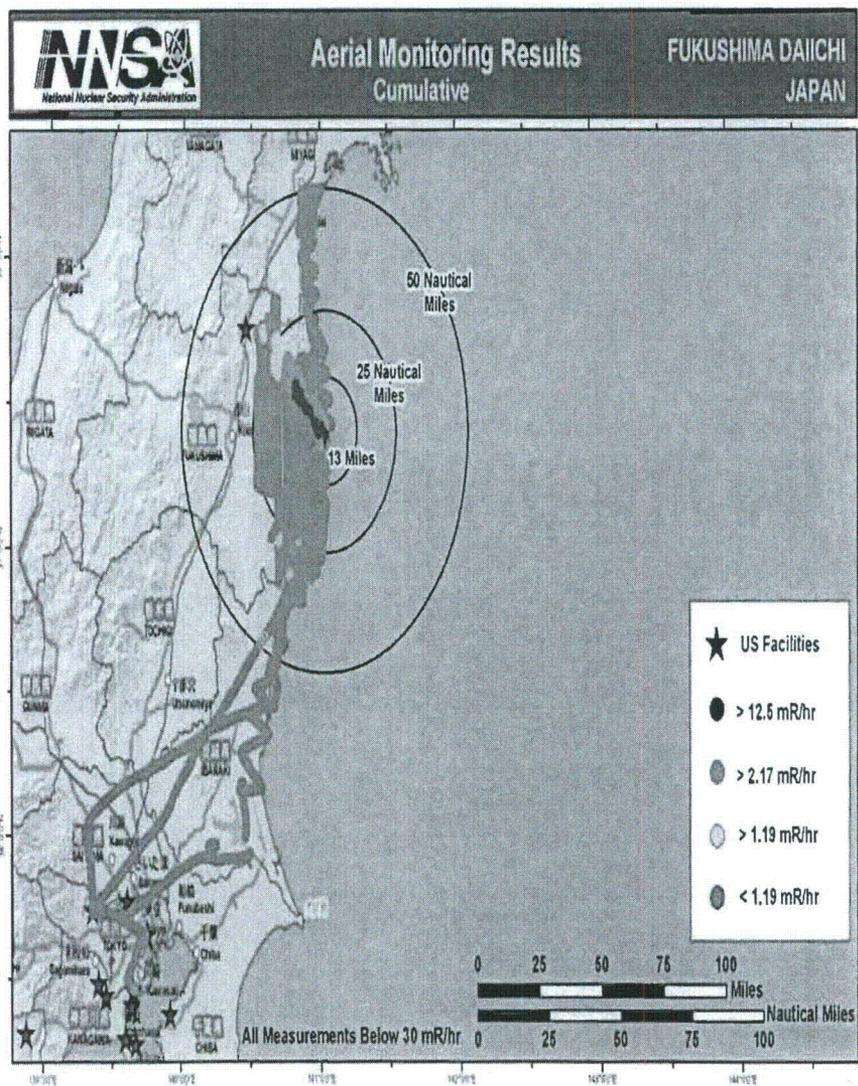
CA/117



United States Nuclear Regulatory Commission

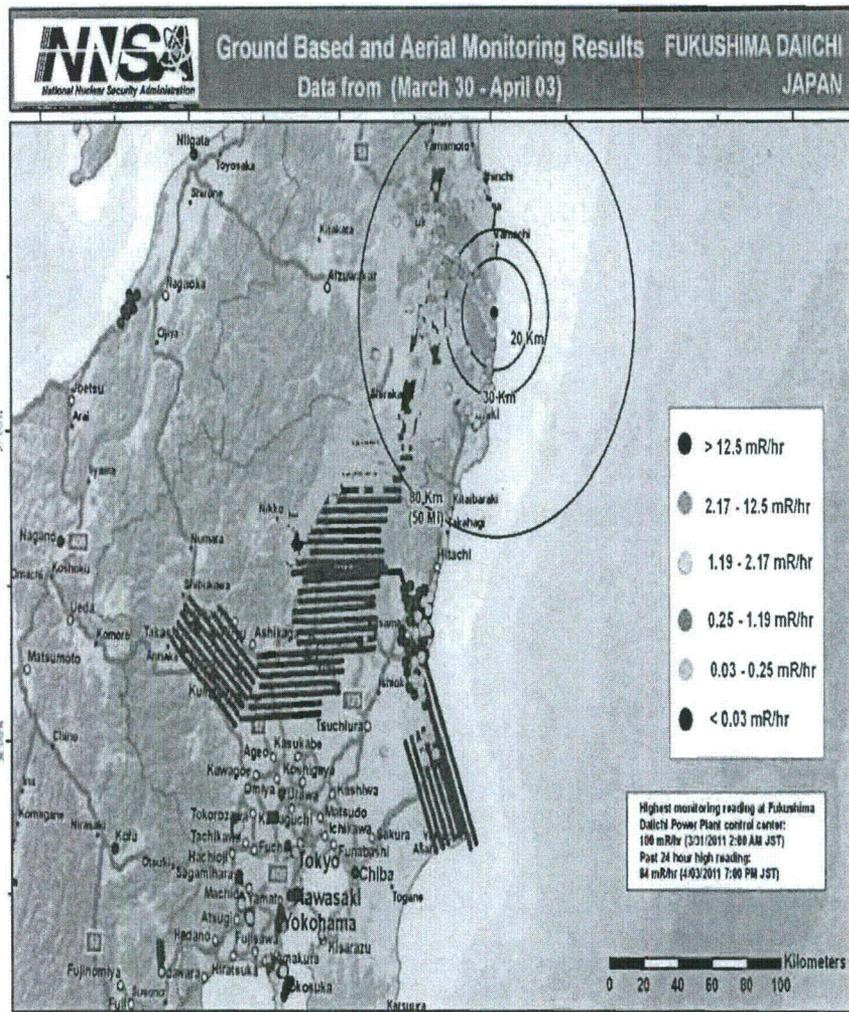
Protecting People and the Environment

Offsite Consequences



Map created on 03222011 0245 JST
msd 101-D-CumAMS 21Mar2011 v1

Offsite Consequences



Map created on 04032011 2340 JST
Name: 101 Combined Flight Ground Measurements 30Mar_03Apr2011 Results

UNCLASSIFIED

Nuclear Incident Team DOE NIT
 Contact (202) 586 - 8100

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 10:49 AM
To: Sullivan, Randy
Subject: a starting point for PARs
Attachments: ACRS Template.pptx

I think the first slide is impt because we need to remind people that we have a 10 and 50 and the language says "provides a substantial basis for expansion....."

Adjust as necessary Clean up or throw out -;)

CA/118



Emergency Planning Zones and Protective Action Recommendations

- Two emergency planning zones (EPZ) around each nuclear power plant
 - 10 mile EPZ – plume exposure planning zone
 - 50 mile EPZ – ingestion exposure planning zone

- EPZ size established:
 - to protect against most accident sequences
 - to provide a substantial basis for expansion of response efforts as needed beyond the EPZ distances



Emergency Planning Zones and Protective Action Recommendations

- Recommendation for 50 mile evacuation
 - Limited and uncertain data was available
 - Significant challenges to 4 units/spent fuel pools on site
 - Potential for large offsite release existed
 - Staff modeled aggregate core to simulate potential release and assess consequences
 - Decision to expand evacuation was reasonable and prudent under existing conditions

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 10:22 AM
To: Oesterle, Eric
Subject: RE: Action: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits
Attachments: image001.png; image002.jpg

Actually I like those headlines better. -;) maybe focus will be elsewhere and not on Japan and reactors!

From: Oesterle, Eric
Sent: Tuesday, April 05, 2011 10:21 AM
To: Burnell, Scott; McGinty, Tim; Milligan, Patricia
Cc: Markley, Michael; Nelson, Robert; Harrington, Holly
Subject: RE: Action: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits

Thanks, I'll add to the database...not sure how the headlines got in the subject line...kind of misleading! ☺

Eric

Eric R. Oesterle
NRR Communications Team
Senior Policy Analyst (NRO/DNRL)
U.S. Nuclear Regulatory Commission
301-415-1365

From: Burnell, Scott
Sent: Tuesday, April 05, 2011 10:19 AM
To: Oesterle, Eric; McGinty, Tim; Milligan, Patricia
Cc: Markley, Michael; Nelson, Robert; Harrington, Holly
Subject: FW: Action: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits

All;

Yes, I'd seen those when they were first created and that's a fine response from OPA's point of view.

Scott

From: Oesterle, Eric
Sent: Tuesday, April 05, 2011 10:17 AM
To: Burnell, Scott
Cc: Markley, Michael; Nelson, Robert
Subject: FW: Action: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits

Scott,

Please review the attached Q&A for OPA approval. We received these as part of the email string below and polished them up for inclusion in the "NRR Q&A Database". Thanks in advance.

CA/119

Eric

Eric R. Oesterle
NRR Communications Team
Senior Policy Analyst (NRO/DNRL)
U.S. Nuclear Regulatory Commission
301-415-1365

From: Nelson, Robert
Sent: Tuesday, April 05, 2011 7:56 AM
To: Markley, Michael; Oesterle, Eric
Subject: Action: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits

I suggest clearly this thru OPA & adding to our data base.

NELSON

From: McDermott, Brian
Sent: Tuesday, April 05, 2011 6:08 AM
To: Barkley, Richard; Nelson, Robert
Cc: Roberts, Darrell
Subject: RESPONSE: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits

Rich,

Attached is a response prepared by the PMT to support OPA's response to an inquiry about an online graphic that was similarly based on the NRC's dose projection data. The data was published in conjunction with the 16 March press release about the 50 mi evacuation recommendation. Specifically, the projected doses used in the NYT graphic match the second simulation.

Regards,
Brian

From: Barkley, Richard
Sent: Thursday, March 31, 2011 5:36 PM
To: Nelson, Robert
Cc: Roberts, Darrell; McDermott, Brian
Subject: FW: Today's Headlines: Retreat for Rebels; Libyan Foreign Minister Quits

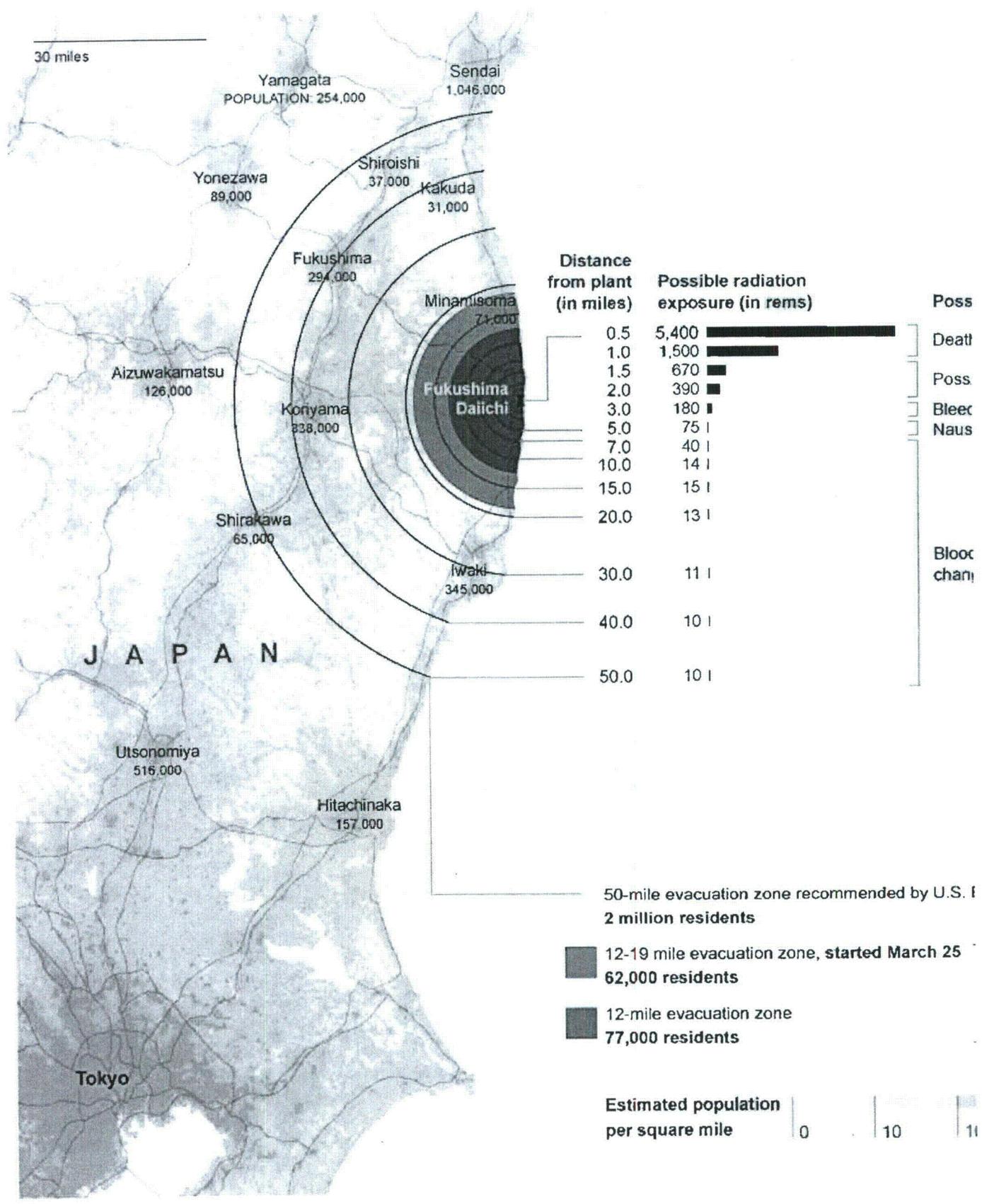
Nelson,

The New York Times conveyed a considerable amount of information today regarding radiation exposures to citizens near Fukushima (assuming they had remained in their homes). The article claimed some very high exposure numbers. The quoted sources for this information included the Nuclear Regulatory Commission.

Have we prepared any type of equivalent information along these lines? I am anticipating seeing these graphics show up at public meetings in the months ahead. Anything that would suggest the kind of exposures being received by the public would be helpful – My guess is that very few members of the public got anywhere near these amounts because they left the area promptly due to the evacuation order, or because the earthquake/tsunami made their home uninhabitable.

Thanks – Maybe Brian's staff have prepared such a document.

The Evacuation Zones Around the Fukushima Daiichi Nuclear Plant



Estimates of Possible Exposure Define U.S. Evacuation Zone

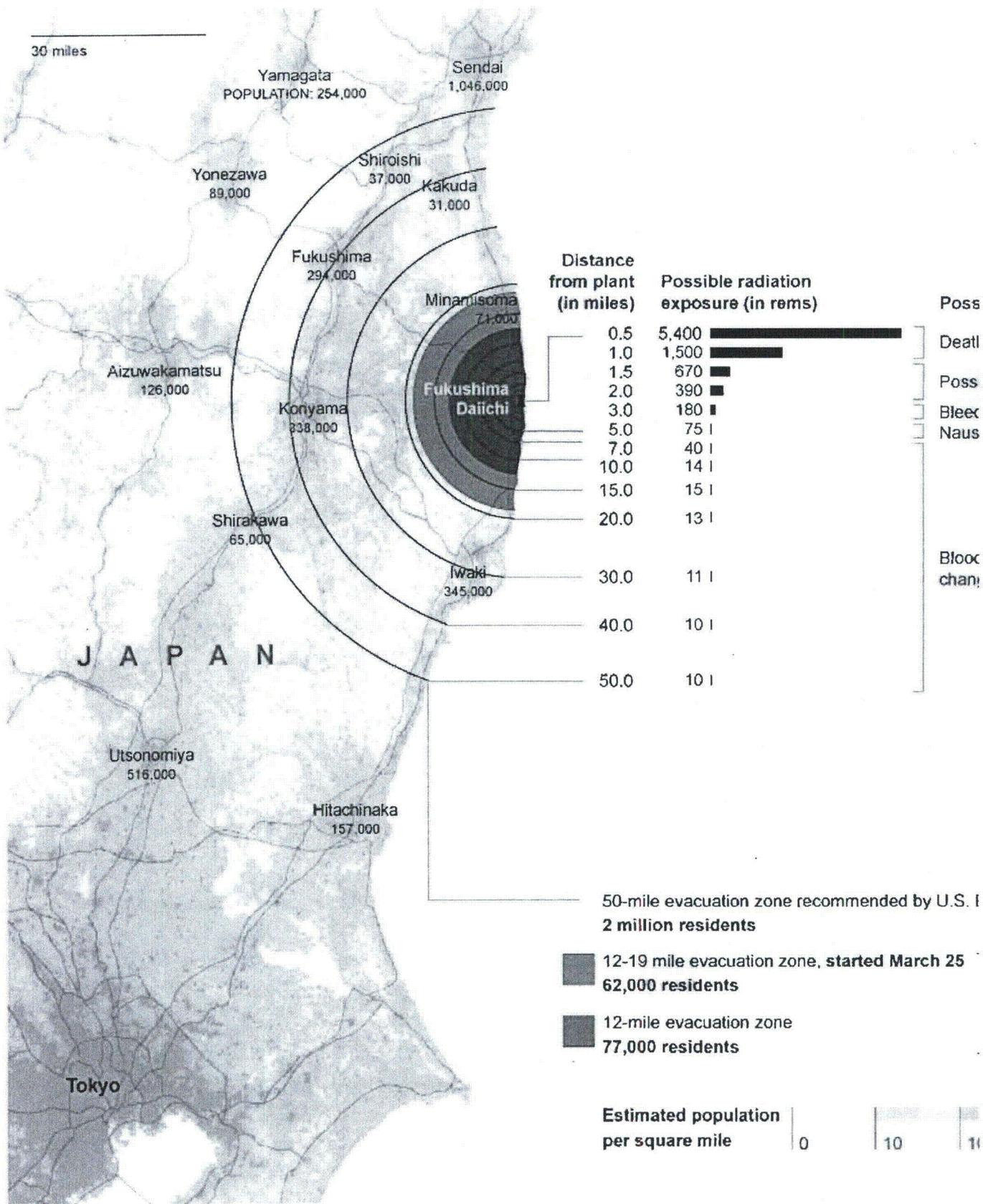
The American Embassy recommended on March 17 that Americans within 50 miles of the Fukushima reactors evacuate. The recommendation was based on an analysis by the Nuclear Regulatory Commission that predicts possible radiation levels assuming conditions at the plant degrade. It is not based on current radiological conditions. It includes factors like whether containment vessels remain intact and weather patterns, among others. Here are the results of the analysis on March 16.

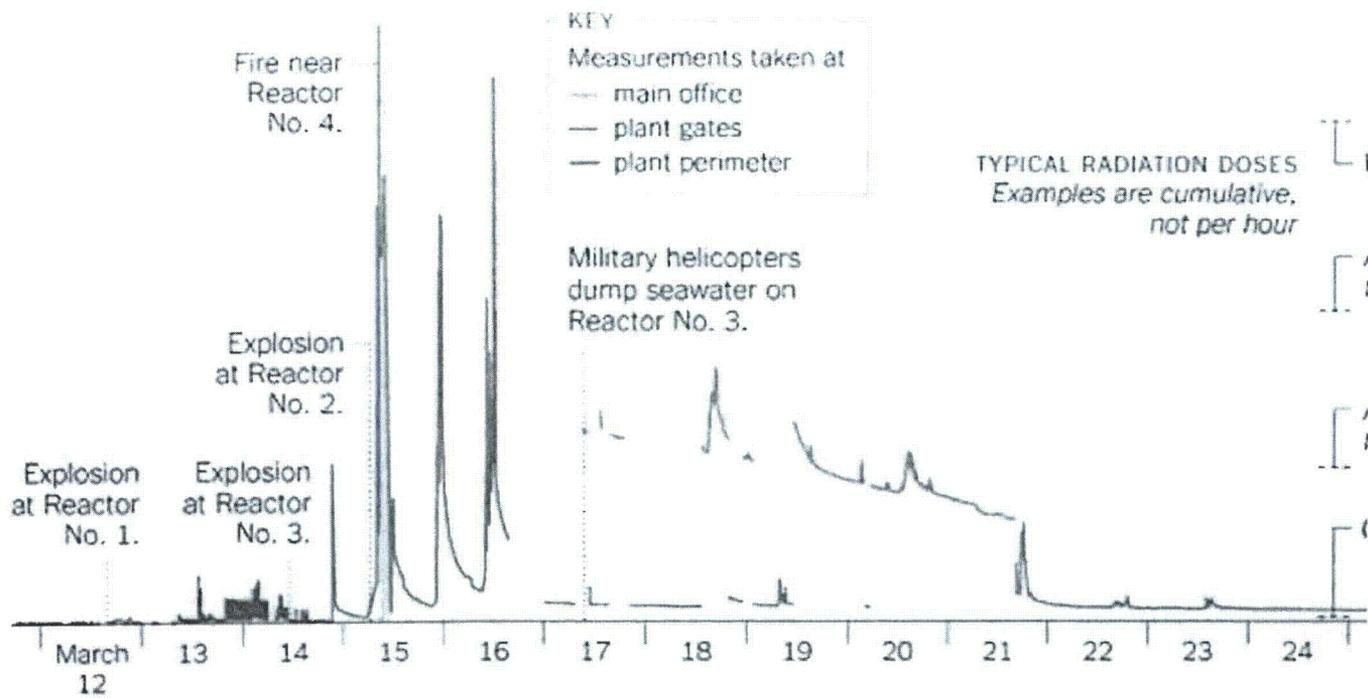
Japanese and American Evacuation Zones

About 2 million people live within 50 miles of the plant. This is a much larger than the area established by the Japanese, who have advised everyone within 19 miles to evacuate.

By AMANDA COX, MATTHEW ERICSON and ARCHIE TSE |

[Send Feedback](#)





March 21, 2011, 1200 EDT

Q&A on "NRC Dose Estimates" chart on Yahoo Group "Know_Nukes"

A chart title "NRC Dose Estimates" has been posted to the Yahoo Group "Know_Nukes," which plots total dose in Rem vs. distance in miles for a one reactor site and a four reactor site. This file is named "nrc_dose_estimates.jpg" and was posted March 17, 2011.

Q. Was this document released by the NRC?

A. This document was not released by the NRC.

The chart appears to plot the dose information that was given as attachments to the March 26, 2011 press release providing NRC protective action guidelines. The NRC press release had two attachments that gave the results of dose assessments for the Fukushima Daiichi facility.

Q. What is the basis for the dose analyses attached to the March 16 NRC press release?

A. This data is based on system condition estimates for a hypothetical, four reactor site. Model results are projections only and may **not** be representative of an actual release. This uses modeled forecast meteorological conditions and is subject to change. See the Q&As for the dose assessment press release for additional information on the dose assessments. (M:\PMT\Fukushima\NARAC 16MAR\Q&As for DoseAssessment Press Release 3-16-11msc.docx)

The assumptions on plant conditions used as a basis for the analyses were indicative of the uncertain and unstable nature of the conditions on Fukushima Daiichi site at the time the analyses were done, and accounted for uncertainty in the future progression of events. Since that time, mitigative actions continue at the plant. Therefore, the assumptions used the analyses may continue to overestimate the releases. The NRC continues to support the protective action recommendations given that the conditions at the plant continue to change.

File name: "M:\Japan Documents\QAs on Yahoo graph.docx"

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 10:08 AM
To: Harrington, Holly
Subject: FW: Query: NY Times Article on Possible Radiation Exposure

Apparently the dose calc press release comes back to bite us. Also Bob Meck who used to be NRC was helping with this graphic.

From: McGinty, Tim
Sent: Tuesday, April 05, 2011 10:02 AM
To: Milligan, Patricia
Subject: RE: Query: NY Times Article on Possible Radiation Exposure

See below under "radiation risk" area, 3rd on right

<http://www.nytimes.com/interactive/2011/03/24/world/asia/japan-interactive-index.html?ref=asia>

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 9:52 AM
To: McGinty, Tim
Subject: FW: Query: NY Times Article on Possible Radiation Exposure

Tim-
What graphic? What article??

From: McGinty, Tim
Sent: Tuesday, April 05, 2011 7:53 AM
To: Burnell, Scott; Couret, Ivonne
Cc: Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth
Subject: RE: Query: NY Times Article on Possible Radiation Exposure

Thanks Scott. Tim

From: Burnell, Scott
Sent: Tuesday, April 05, 2011 7:52 AM
To: McGinty, Tim; Couret, Ivonne
Cc: Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth
Subject: Re: Query: NY Times Article on Possible Radiation Exposure

Hi Tim;

Our only NRC "information" in that graphic is the 50-mile recommendation, and yes there's an existing Q/A on why we made the recommendation. I would suggest nothing further needs to be done.

Scott

Sent from an NRC Blackberry

CA/120

Scott Burnell

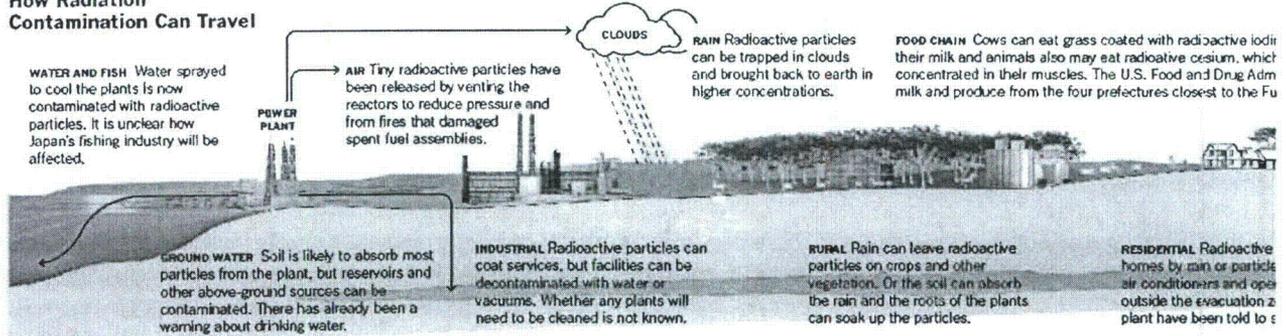
(b)(6)

From: McGinty, Tim
To: Couret, Ivonne; Burnell, Scott
Sent: Tue Apr 05 07:46:29 2011
Subject: Query: NY Times Article on Possible Radiation Exposure

Hi Ivonne/Scott: I'm in the Ops Center as the ET Response Advisor. I was handed a "graphic", which is a map of Japan with populations and distance "rings", with a table delineating possible radiation exposure, possible effects, etc. I was told it was from an article in the NY Times (I do not have the article, just the graphic), and that we may have already addressed the article in the form of Q's and A's or a rebuttal.

Can you help shed any light on this so I can share it with Bruce Boger? Thanks, Tim

How Radiation Contamination Can Travel



Sources: Nuclear Regulatory Commission; National Institutes of Health

From: Milligan, Patricia
Sent: Tuesday, April 05, 2011 8:01 AM
To: Merzke, Daniel
Subject: RE: Summary of CA Meeting on Draft EPA PAG Manual

ok

From: Merzke, Daniel
Sent: Tuesday, April 05, 2011 7:53 AM
To: Milligan, Patricia; Morris, Scott; Wiggins, Jim
Cc: Evans, Michele; McDermott, Brian; Brock, Kathryn; Muessle, Mary; Andersen, James
Subject: RE: Summary of CA Meeting on Draft EPA PAG Manual

(b)(5)

Dan

From: Milligan, Patricia
Sent: Monday, April 04, 2011 8:57 AM
To: Merzke, Daniel; Morris, Scott; Wiggins, Jim
Cc: Evans, Michele; McDermott, Brian; Brock, Kathryn; Muessle, Mary; Andersen, James
Subject: RE: Summary of CA Meeting on Draft EPA PAG Manual

(b)(5)

From: Merzke, Daniel
Sent: Monday, April 04, 2011 8:42 AM
To: Morris, Scott; Wiggins, Jim; Milligan, Patricia
Cc: Evans, Michele; McDermott, Brian; Brock, Kathryn; Muessle, Mary; Andersen, James
Subject: RE: Summary of CA Meeting on Draft EPA PAG Manual

(b)(5)

Dan

From: Morris, Scott
Sent: Wednesday, March 30, 2011 1:38 AM
To: Merzke, Daniel; Virgilio, Martin; Weber, Michael
Cc: Muessle, Mary; Andersen, James; Brock, Kathryn; Wiggins, Jim; McDermott, Brian; Milligan, Patricia
Subject: RE: Summary of CA Meeting on Draft EPA PAG Manual

Thanks for summarizing for us Dan ... sorry I couldn't make it (working the midnight shift ... you should try it!).

CA/121

(b)(5)

Scott

From: Merzke, Daniel
Sent: Tuesday, March 29, 2011 11:08 AM
To: Virgilio, Martin; Weber, Michael
Cc: Muesle, Mary; Andersen, James; Brock, Kathryn; Wiggins, Jim; McDermott, Brian; Morris, Scott; Milligan, Patricia
Subject: Summary of CA Meeting on Draft EPA PAG Manual

(b)(5)

Dan

From: Milligan, Patricia
Sent: Monday, April 04, 2011 5:06 PM
To: Milligan, Patricia; Buchholz, Jeri; Evans, Michele
Cc: McDermott, Brian; Tracy, Glenn
Subject: RE: Trying to Nail an Issue Down

From the frequently asked questions page of 10 CFR 20 -

Question 90: Can a licensee require its workers to routinely take potassium iodide (KI) when handling large quantities of radioiodine and take credit for the reduction in occupational dose that results from the use of the KI?

Answer: No. Requiring the use of KI for this purpose is neither a "process or engineering control...to control the concentration of [radioiodine] in air" 10 CFR 20.1701).

Furthermore, because KI blocks uptakes (not intakes), the use of KI for thyroidal blocking cannot be considered to be among the "other controls" required by 10 CFR 20.1702 for

limiting intakes. The following cautionary note in NRC Information Notice 88-15 (4/18/88) continues to be applicable under the Revised Part 20:

"It is important to stress that the use of potassium iodide is not a substitute for preventive measures; e.g., proper handling techniques, control measures, and emergency

procedures that protect the individual from exposure to radioactive material."

A licensee should optimize design and engineering controls, as well as operating procedures, as a means of ensuring that doses from airborne radioiodine are ALARA. However,

in situations where KI has been administered following a suspected intake, the licensee may take credit for the protection if bioassays support the effectiveness of the KI

in blocking the thyroid.

Finally, although licensees are not authorized to require their employees to routinely take KI when working with radioiodine, nothing in NRC regulations prohibits an

individual from taking KI on a purely voluntary basis; however, the NRC does not recommend the voluntary use of KI in this manner. (Reference 10 CFR 20.1701)

CA/122

From: Milligan, Patricia
Sent: Monday, April 04, 2011 4:30 PM
To: Buchholz, Jeri; Evans, Michele
Cc: McDermott, Brian; Tracy, Glenn
Subject: RE: Trying to Nail an Issue Down

The attached management directive includes KI administration as part of the protection against ionizing radiation. In Exhibit 4, it clearly states that administration of KI to the population between 18 and 40 would be if doses to the thyroid are expected to exceed 10 cGy or 10 rad, for populations older than 40 the recommended thyroid dose to consider KI is 500 cGy or 500 rad. For practical purposes in the US, the recommendation made by states is to consider the use of KI at the same dose as for children – 5 rad child thyroid dose rather than attempt to parse the population and emergency messages.

NRC workers are considered to be "occupational" workers and are subject to higher, occupational limits per 10 CFR 20 Subpart C.- 5 rem TEDE and 50 rem CDE for any organ except lens of the eye. Since the work the staff is doing in Japan is occupational and not in accident response, running into a burning building to save a life, one could argue that the appropriate dose limit to consider is 5 rem TEDE which could include up to 50 rad contribution from the thyroid gland.

NRC does not consider administration of KI to be considered as part of ALARA planning for reduction of worker dose. Along that same line, consideration should be given to body counting these occupational workers before and after their trip to Japan and if there is concern, arrangements should be made for a thyroid bioassay.

From: Evans, Michele
Sent: Monday, April 04, 2011 3:36 PM
To: Milligan, Patricia
Subject: FW: Trying to Nail an Issue Down

From: Buchholz, Jeri
Sent: Monday, April 04, 2011 2:27 PM
To: Evans, Michele
Cc: Tracy, Glenn
Subject: RE: Trying to Nail an Issue Down

Michele:

What we are looking for is the written protocol for administration of KI which the NRC should have a copy of even if the lead for protective measures has been assumed by another agency. I understand you were working on this issue over the weekend.

Is there someone on your staff who has been working this issue you recommend that I work with to sort this out?

Jeri

From: Evans, Michele
Sent: Friday, April 01, 2011 7:04 PM
To: Buchholz, Jeri
Cc: Tracy, Glenn
Subject: RE: Trying to Nail an Issue Down

Jeri,

About a week ago this is what Marty indicated in an attachment he sent me

"It appears that DOS, NR and DOE have assumed the lead for protective measures for US citizens and the military in Japan and we can either immediately scale back or end HQ operation center (Ops Ctr) protective measures support to the site team." (however, we have not scaled back on our PMT function yet)

So our employees in Japan would do as recommended by those agencies.

I am following up with my staff and the PMT for the latest on this to see if we have fine tuned the roles of those agencies. I am working in the Ops center on Sunday. I'll send you the latest update then.

Michele

PS – I copied Glenn on this, since I talked to him earlier today.

From: Buchholz, Jeri
Sent: Friday, April 01, 2011 4:00 PM
To: Evans, Michele
Subject: Trying to Nail an Issue Down

Michele:

There is a long string of e-mail below that I do not recommend that you read unless you feel you need to.

I am trying to nail down who has the final responsibility to contact employees in Japan and say "Take your KI now."

Is that you? Is that someone in the Ops center?

Jeri

From: Temple, Jeffrey
Sent: Thursday, March 31, 2011 7:13 PM
To: Tracy, Glenn; Dempsey, Jeanne
Cc: Cadoux, Claude; Linnerooth, Sarah; Lobe, Jon; Buchholz, Jeri
Subject: RE: Preparations/Coordination for Deployments

Thanks Glenn and Jeanne....will incorporate what we can into our guidance for travellers to Japan. Thanks to all fo your help. Jeff Temple

From: Tracy, Glenn
Sent: Thursday, March 31, 2011 5:22 PM
To: Dempsey, Jeanne; Temple, Jeffrey

Cc: Cadoux, Claude; Linnerooth, Sarah; Lobe, Jon; Buchholz, Jeri
Subject: RE: Preparations/Coordination for Deployments

Thanks Jeanne. Well done. I am interested in ensuring closure and clear guidance for those deployed regarding the highlighted paragraphs below, with responsibilities articulated. They are not necessarily HR's, but we do need to discuss with appropriate management and staff in NSIR and NRR, and ensure it is ultimately coordinated/developed, even perhaps led, by State and the embassy, as the measures to be taken should be consistent for all responders it would seem. Thanks so much. Glenn

From: Dempsey, Jeanne
Sent: Thursday, March 31, 2011 5:04 PM
To: Temple, Jeffrey
Cc: Cadoux, Claude; Linnerooth, Sarah; Lobe, Jon; Buchholz, Jeri
Subject: Preparations/Coordination for Deployments

I wanted to follow up on our conversation about coordinating the various activities involved in assisting our employees who are being deployed to Japan. As you probably already know, the latest email that was sent to those employees who have been selected to go includes information from HR:

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

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

When Dr. Cadoux meets with the employee, they can discuss health considerations for travel, issues for working conditions, KI medical issues and providing KI as part of the deployment. He also generally sees the employees upon their return. He has provided telephone consults with regional employees if he cannot see them in person.

I contacted John O'Donnell in FSME (RSO) and talked to him about whether we need to look into the availability of internal dose measurements (whole body counting) if that becomes something we think might be needed. John manages the dosimeter contract and he is working with Roger Pedersen in NRR to look into a facility nearby.

Dr. Cadoux and I discussed some other things we may wish to consider:

Ensuring there is 24/7 communication (including risk communication) with team members – it appears this was done by providing international blackberries. Has a process been defined and communicated regarding roles and responsibilities to notify the team should alarming contamination data become available? This may have already been worked out, but we are not clear on how decisions will be made and communicated regarding whether to have employees take/not take KI. Since HR is not directly involved, we aren't sure how this is being handled. Dr. Cadoux recommended we consider a communication plan regarding a recommendation for KI, and that it be 1) clearly understood by all, 2) sufficiently time-sensitive and, 3) certain to reach all NRC employees who will need this information wherever they are, day or night.

If you think a meeting or discussion would be appropriate, we would be happy to meet with you. I would suggest having an agency expert, someone like Trish Milligan, also participate, and a liaison in Operations Center.

I will be out of the office on Friday, but will check my blackberry (I will be out of town).

Thanks
Jeanne

Jeanne Dempsey
Health Services Program Manager
Work Life and Benefits Branch
Office of Human Resources, GW 5A06
U.S. Nuclear Regulatory Commission
Washington, DC 20555
Office: 301-492-2282
BB: (b)(6)
jeanne.dempsey@nrc.gov



From: Milligan, Patricia
Sent: Monday, April 04, 2011 3:33 PM
To: Evans, Michele
Subject: FW: quick question

From: Pedersen, Roger
Sent: Monday, April 04, 2011 3:27 PM
To: Milligan, Patricia
Subject: RE: quick question

Trick question. MD 10.131 doesn't address occupational dose vs. public dose. To quote our esteemed past Chairman, Shirley Jackson, "we're all radiation workers."

If you go by the Part 20 definitions, (MD 10.131 was written to parallel Part 20) I would say that any dose that they picked up related to the Fukushima plant is occupational dose. OGC may however disagree depending on how you interpret "from past nuclear accidents" clause in the definition of "background radiation."

From: Milligan, Patricia
Sent: Monday, April 04, 2011 2:50 PM
To: Pedersen, Roger
Subject: quick question

Hi Roger

Do we consider the NRC employees who have been dispatched to Japan to be "radiation workers" and any dose received to be occupational dose as defined in 10CFR20 Subpart-C Occupational Dose Limits?

Thanks
Trish

CA/123

From: Milligan, Patricia
Sent: Monday, April 04, 2011 3:29 PM
To: Cool, Donald
Subject: RE: Some Background Help??
Attachments: image001.png

(b)(5)

NRC PARs

In November 1976, a federal task force was formed to look at salient emergency planning issues for U.S. nuclear power plants. Out of that comprehensive evaluation came a recommendation that a 10-mile-radius EPZ would assure that "prompt and effective actions can be taken to protect the public in the event of an accident" at a plant. This was based on research showing the most significant impacts of an accident would be expected in the immediate vicinity of a plant and therefore any initial protective actions, such as evacuations or sheltering in place, should be focused there.

Put another way, the projected radiation levels would not be expected to exceed EPA protective action dose guidelines (1 rem to the body or 5 rem to the thyroid) beyond 10 miles under most accident scenarios.

That does not mean the protective actions could not expand beyond the 10-mile radius. Rather, emergency planners have always known such actions could be necessary if the situation warranted it. Indeed, U.S. nuclear power plants are required to consider and drill for the possibility of radiation releases that could have impacts up to 50 miles away, in addition to the required biennial exercises conducted in the vicinity of each nuclear power plant to assess implementation of the emergency plan within the 10-mile EPZ. Once every six years, each plant takes part in an exercise graded by the NRC and FEMA to demonstrate how it would handle such an event.

The task force considered a range of accidents from design basis events to severe or "Class 9" accidents. The Reactor Safety Study (WASH 1400) evaluated the range of severe accidents including total loss of electrical power to evaluate the potential offsite consequences of such accidents. The 10 mile plume exposure emergency planning zone was a result of this evaluation. The analysis of consequences from a severe accident were bounded for most accident sequences to be within 10 miles. The task force believed that the comprehensive planning undertaken for the 10 mile EPZ could be built upon and expanded should conditions warrant. The same is true for the 50 mile ingestion exposure pathway- and again, the taskforce believed that such comprehensive planning undertaken for the 50 mile EPZ could also be expanded as necessary.

The decision to recommend a 50-mile radius evacuation of U.S. citizens near the Fukushima Daiichi site in Japan was based upon an initial set of limited information on the conditions at that six-unit power reactor facility. Specifically, there were preliminary indications of some reactor fuel damage at three of these reactors and severely degraded conditions in at least two of the spent fuel pools at the 6 unit facility. The advisory was based on calculations performed by NRC experts that indicated that releases from these reactors could possibly exceed the above noted EPA protective action dose guidelines. This advisory was a prudent, conservative recommendation by the NRC and was based on a conservative assessment of radiological conditions that could possibly exist given the limited information available.

In the event of a radiological emergency at a nuclear power plant in the United States, we would anticipate knowing substantially more information regarding the condition of the reactors, their containment structures, and the spent fuel pools, in part, because of the active presence of NRC Resident Inspectors. We would be able to make precise recommendations regarding the evacuation of individuals within the 10-mile radius EPZ

C/124

of the facility, as well as providing recommendations on the need for any other protective action (such as sheltering) beyond the 10-mile EPZ in the rare event that radiation doses to the public are projected to be above the EPA protective action guideline.

The events at the Fukushima Daiichi site were unique in that the facility experienced one of the strongest earthquakes in recorded history, was struck by a large tsunami, and lost all onsite and offsite electricity necessary to power its nuclear safety equipment for more than 10 days. All U.S. nuclear power plants are built to withstand external environmental hazards, including earthquakes, tsunamis, and flooding. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster. The NRC requires that safety-significant structures and systems to be designed to take into account the most severe natural phenomena historically reported for the site and surrounding area – even very rare and extreme earthquakes, tsunamis, and flooding. Thus the NRC is confident that the robust design of these plants makes it highly unlikely that a similar event could occur in the United States.

EVACUATIONS-

KI to 20 miles

From: Cool, Donald
Sent: Monday, April 04, 2011 2:00 PM
To: Milligan, Patricia
Subject: Some Background Help??

Trish

I was tagged to go with Virgilio to the House Environment and Commerce hearing Wednesday at 9 am.

Do you have some background on the Emergency Planning requirements we have, our expectations, etc. that you had when you supported hearings last week that you could email me? I want to be sure I am on message for how we do our planning, what is involved, what is considered, the PAG's, etc. I think I know, but will be spending some time tomorrow reviewing again in prep for Wed am.

Thanks

Don

Donald A. Cool, Ph.D.

Senior Advisor
Radiation Safety and International Liaison

MS T8F42

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

 Donald.Cool@nrc.gov  Office 301-415-6347  Fax 301-415-5955

From: Milligan, Patricia
Sent: Monday, April 04, 2011 2:35 PM
To: Evans, Michele
Subject: problem?
Attachments: md10.131[1].pdf

Michele

As the apparent "KI expert" for the agency, I have been involved in discussions with different offices regarding the appropriate use of KI for NRC workers in Japan. The NRC has a management directive (see attached) which includes direction on KI use. If we are deviating from that direction, we should document that decision as in "NRC employees shall follow lead of State department regarding possible use of potassium iodide". Ostensibly we are sending occupational workers to Japan and they fall under the NRC's occupational exposure guidelines- 5 rem TEDE, 50 rem CDE. I am concerned that failing to document our decision could be difficult for us later especially with respect to KI in the arena of public opinion.

Perhaps we should have a short meeting with HR, Medical (Dr. Cadoux), NRR- Roger Pederson the RSO for the NRC and NSIR.

Thanks.
Trish

CA/125

From: Milligan, Patricia
Sent: Monday, April 04, 2011 1:12 PM
To: Chowdhury, Prosanta
Subject: RE: NRC Protective action recommendations

Title: "Nuclear Accident in Japan: NRC Early Protective Action Recommendations" (I won't mess with excellence)
Short abstract: In response to the unfolding events at the Fukushima- Dai'ichi nuclear power station in Japan, the NRC recommended that it was appropriate for U.S. residents within 50 miles of the Fukushima reactors evacuate. This short presentation will discuss the NRC basis for the recommendation.

Speaker Bio: Patricia A. Milligan is a Senior Technical Advisor for Preparedness and Response in the NRC's Office of Nuclear Security and Incident Response. She serves as the assistant Director on the Protective Measures Team in the NRC Emergency Operations Center.

From: Chowdhury, Prosanta
Sent: Sunday, April 03, 2011 5:28 PM
To: Milligan, Patricia
Subject: FW: NRC Protective action recommendations

Trish:

Please provide me ASAP

- (i) a title of the presentation (see if the one I proposed below will do)
- (ii) a short abstract
- (iii) presenter's short bio (it's you - right?)

Thanks
Prosanta

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

From: Chowdhury, Prosanta
Sent: Friday, April 01, 2011 6:59 PM
To: Milligan, Patricia
Subject: RE: NRC Protective action recommendations

Trish:

Questions:

1. Title of presentation: "Nuclear Accident in Japan: NRC Early Protective Action Recommendations" or something else?
2. Do you plan to ask our OPA (e.g., Scott Burnell) to be present at this Conference all 4 days? I think it will be helpful and useful.

Prosanta

From: Milligan, Patricia
Sent: Friday, April 01, 2011 4:23 PM
To: Chowdhury, Prosanta

CA/126

Subject: NRC Protective action recommendations

NRC proposes to discuss the recent protective action recommendation made for US citizens in Japan. (out to 50 miles). NRC will discuss the input parameters involved in this decision as ongoing NRC actions. NRC will support with a presentation.

From: Schaperow, Jason
Sent: Monday, April 04, 2011 12:51 PM
To: Milligan, Patricia
Subject: FW: IAEA Source Term data
Attachments: Source term for march 26 with basis .docx

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

From: Tinkler, Charles
Sent: Wednesday, March 30, 2011 10:36 AM
To: Schaperow, Jason
Subject: FW: IAEA Source Term data

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

From: PMT01 Hoc
Sent: Wednesday, March 30, 2011 9:47 AM
To: Esmaili, Hossein; Tinkler, Charles
Cc: Lee, Richard
Subject: FYI: IAEA Source Term data

Hossein and Charlie,

Forwarding you an IAEA source term estimate, FYI.

Tony Huffert
Rich Clement
PMT- NRC Ops Center
301-816-5402

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

From: Shaffer, Mark R [mailto:ShafferMr@state.gov]
Sent: Wednesday, March 30, 2011 6:23 AM
To: Szymanski, John
Cc: LIA02 Hoc; LIA03 Hoc; Schwartzman, Jennifer
Subject: IAEA Source Term data

Mr. Szymanski:

I spoke with Mr. Jim Lyons, IAEA's Director for the Division of Nuclear Installation Safety, regarding your question. He provide me with the response below, as well as the attached document which summarizes the source term assumptions. Hope this helps.

-Mark

CA/127

////////////////////////////////////
////////////////////////////////////

From: J.Lyons@iaea.org [mailto:J.Lyons@iaea.org]
Sent: Wednesday, March 30, 2011 11:47 AM
To: Shaffer, Mark R
Subject: Source term for march 26 with basis .docx

Mark,

The attached estimates of the magnitude and pattern of the release of I-131, Cs-137 and Te-132 were prepared Sunday by our Tom McKenna (IAEA).

Estimates are based on the available information on ground deposition, gamma dose rates and other environmental monitoring data. This source term was provided to RSMA Montreal and CTBTO to use in the atmospheric dispersion models. Note that we are looking at what happened, not what is going to happen.

Jim

This email is UNCLASSIFIED

**Estimation of the Source Term
for Daiichi NPP Accident
3/27/2011**

Two following source terms are estimated:

- Early – for the total release over the period of March 15-17; and
- Later – an ongoing release rate per day after March 17.

The release quantities for only 3 radionuclides are provided:

- **I-131** and **Cs-137** because they are the major public health concerns;
- **Te-132** because its presence indicated core melting.

Table 1 provides the total release assumed before **18 March**. Estimation of this source term was based on:

- A release from the fuel consistent with core melting; plant conditions indicated the core was uncovered and severely damaged and CTBTO data showed the presence of Te-132 in ratios with Cs-137 consistent with some core melting;
- A release rate to environment was estimated by scaling the release rate until it was consistent with dose rates reported off-site during this period.

Table 2 provides the estimated source term for a daily on going release at a constant rate (Bq/day). This source term was based on:

- A release from fuel consistent with severe core damage as discussed above. A constant release rate was assumed because the plant was relatively stable during this period and the offsite deposition rates for I-131 and Cs-137 were relatively constant, if the effects of rain are considered;
- Consideration of the previous WMO modelling;
- The constant release rate to environment estimated by scaling the release rate until it was consistent with off-site reported deposition concentrations;
- The radionuclide mixture corrected for decay.

Table 1. Total amount released to atmosphere during the period before 18 March, 2011

Radionuclide	Bq
I-131	6E15
Cs-137	6E14
Te-132	5E15

Table 2: Constant release rate per day over the period 17 -26 March, 2011

March	17	18	19	20	21	22	23	24	25	26
I-131 [Bq]	1.E+14	8.E+13	7.E+13	5.E+13	3.E+13	2.E+13	1.E+13	5.E+12	2.E+12	1.E+12
Cs-137 [Bq]	1.E+13									
Te-132 [Bq]	1.E+14	7.E+13	3.E+13	1.E+13	5.E+12	1.E+12	3.E+11	6.E+10	9.E+09	1.E+09

Subject: EPA discussion on reentry criteria

Start: Mon 4/4/2011 9:30 AM

End: Mon 4/4/2011 10:00 AM

Recurrence: (none)

Organizer: Milligan, Patricia

CA/128

From: Milligan, Patricia
Sent: Friday, April 01, 2011 11:33 AM
To: Meighan, Sean; Thomas, Eric
Subject: NGA April 2011 pxm.ppt
Attachments: NGA April 2011 pxm.ppt

CA/129



United States Nuclear Regulatory Commission

Protecting People and the Environment

Presentation on Fukushima to NGA Center for Best Practices

Eric Leeds, Director

Office of Nuclear Reactor Regulation

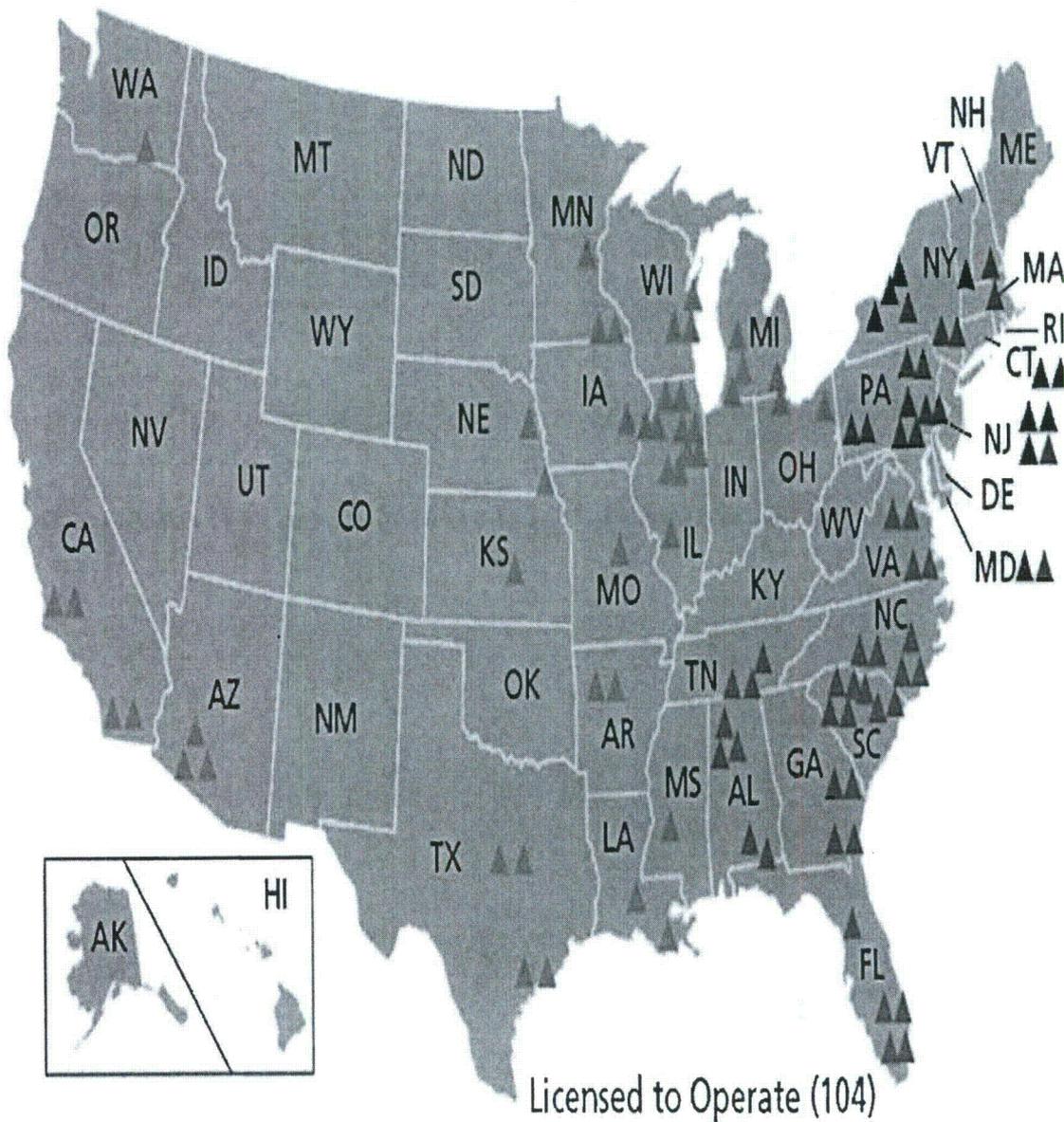
(NRR)



NRC Mission – What Do We Do?

- The mission of the NRC is to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials in order to **protect public health and safety, promote the common defense and security, and protect the environment.**

Operating Commercial Power Reactors

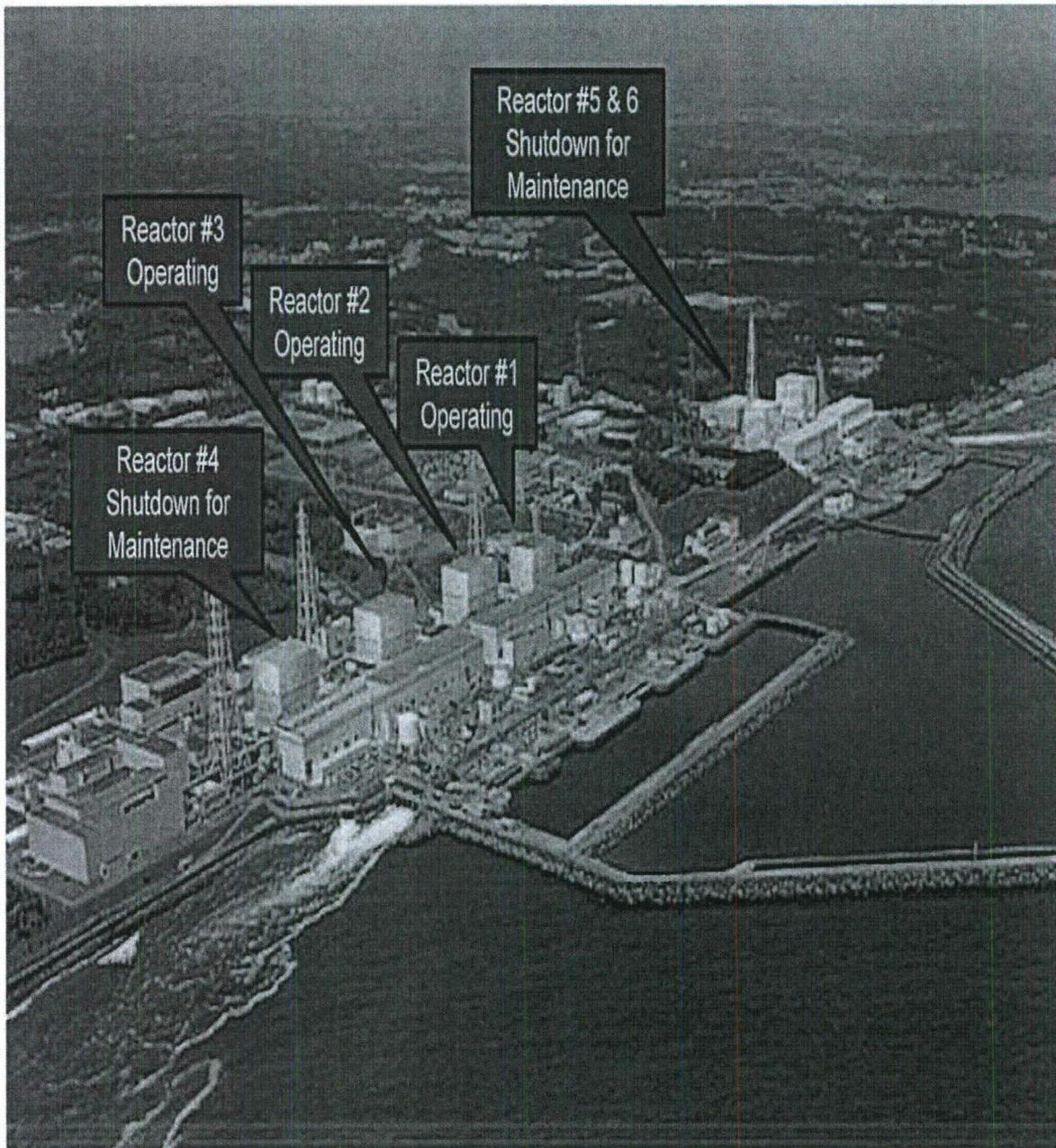


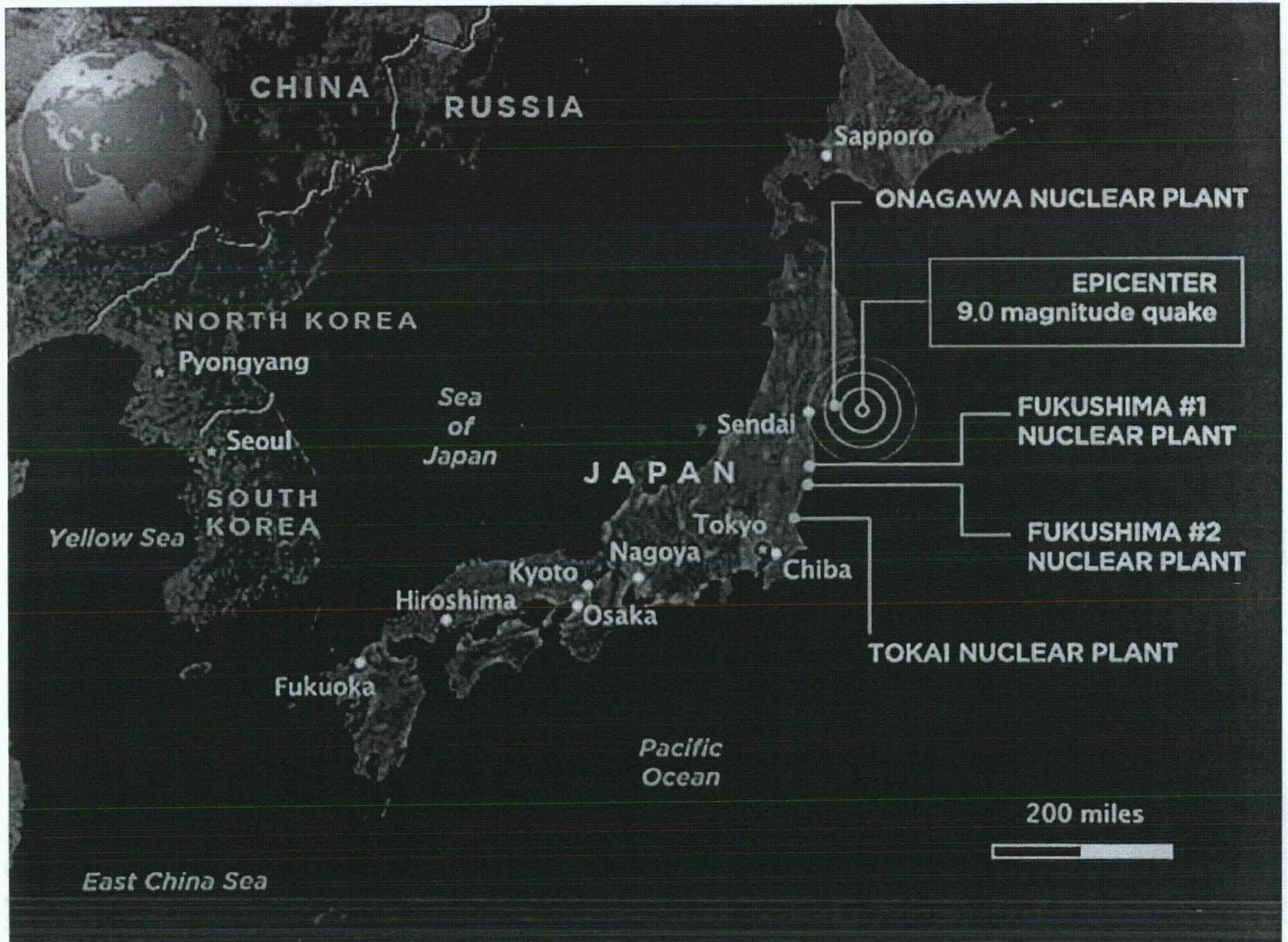


United States Nuclear Regulatory Commission

Protecting People and the Environment

Overview of Fukushima Daiichi Nuclear Power Station







Earthquake & tsunami sequence of events

Friday March 11th @ 2:36 pm local

- Magnitude 9.0 earthquake 231 miles northeast of Tokyo.
- Quake is fifth largest in the world (since 1900).
- Earthquake generated a 14m Tsunami



Plant Response

Earthquake

- Earthquake Caused Automatic Shutdown of 3 Operating Units
- Offsite Power Lost
- Initial indications are that Emergency Diesels were operating

14m Tsunami (less than 1 hour later)

- All Emergency Back-up Power Lost
- 8-10 hours later Station Batteries Depleted



NRC Response

- Ops Center 24/7
- Team of experts to Tokyo
- Support to U.S. Ambassador and Japanese
- Coordinating Environmental Monitoring with DOE & EPA
- PARs



PARS

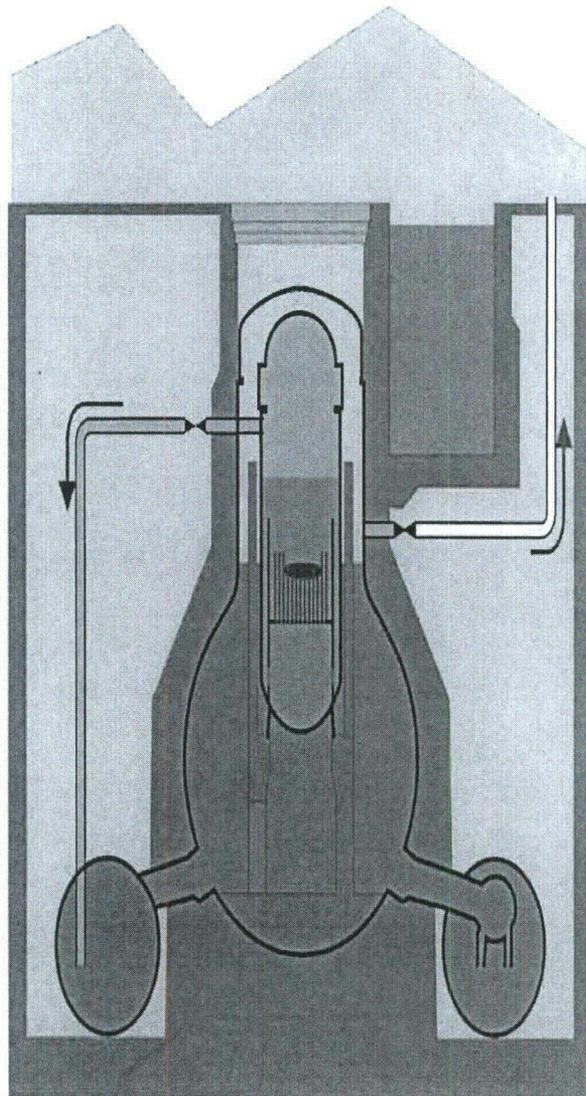
- NRC regs have 2 EPZs 10/50
- EPZs are not limits, but frameworks for expansion as needed
- 50 miles in Japan due to extraordinary situation
 - 4 units severely challenged
 - Unclear information as to state of reactors, mitigative strategies, rad releases
 - Decision to evac conservative, better to err

- Current status of the Reactors

- Core Damage in Unit 1,2, 3
- Electrical Power Restored
- Fresh Cooling Water supplied to
All Units

- Spent Fuel Pool Status

- Suspect Damage to Pools 3 & 4





Domestic Considerations

- No U.S. Health Effects from Fukushima
- U.S. Plants Designed for External Events
- NRC has initiated additional inspections at all U.S. Plants
- NRC conducting Near-Term and Long-Term Reviews.



NRC Near Term Actions

- Evaluate Fukushima Daiichi Events
- Domestic Operating Reactors and Spent Fuel Pools
 - External Events
 - Station Blackout
 - Severe Accident Mitigation
 - Emergency Preparedness
 - Combustible Gas Control



NRC Longer Term Actions

- Based on Near Term Review and Additional Insights from Fukushima
- Identify Potential Technical and Policy Issues
 - Research Activities
 - Generic Issues
 - Reactor Oversight Process
 - Regulatory Framework
 - Interagency Emergency Preparedness



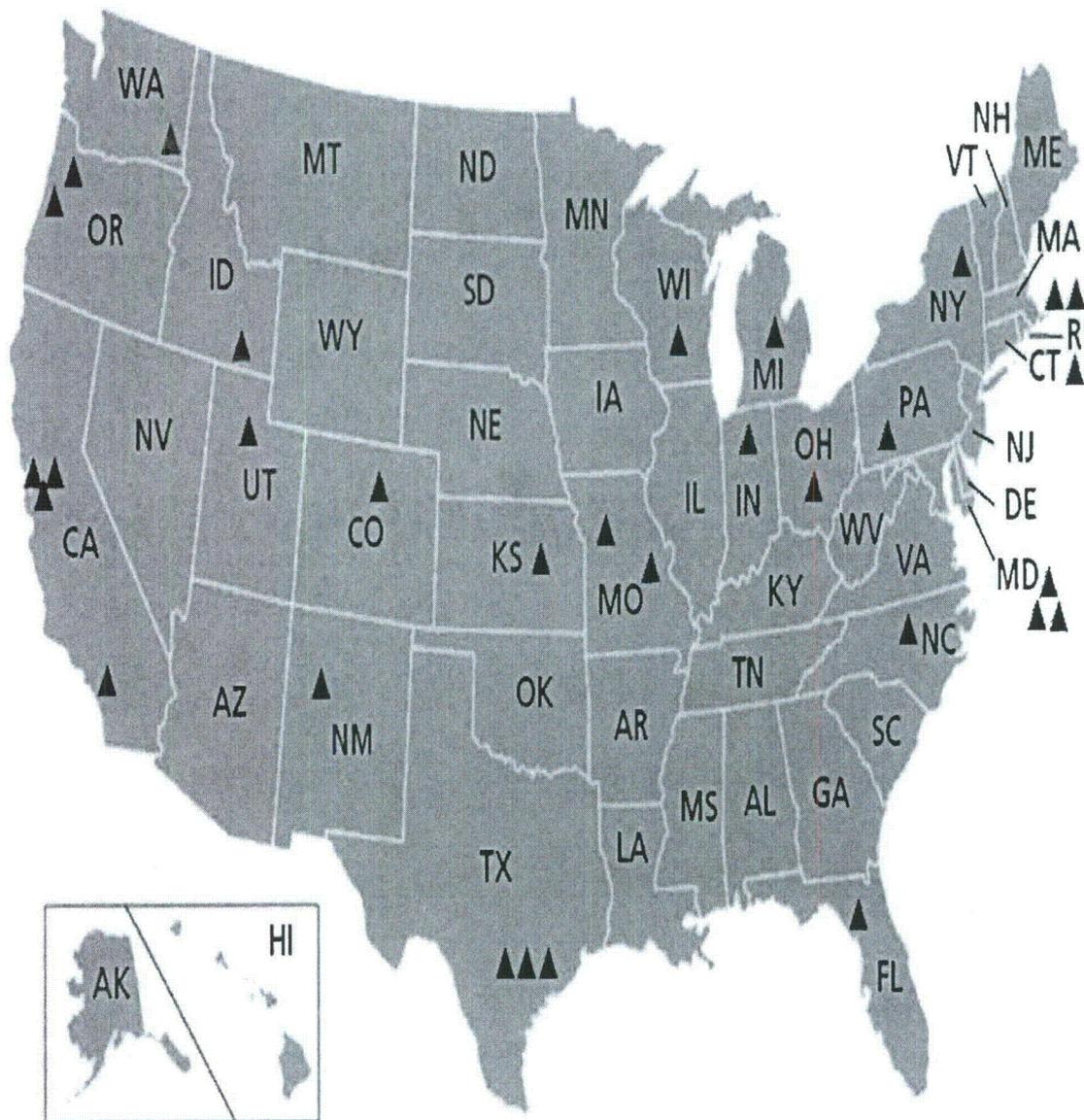
FAQs

- **Could this happen at [any U.S. plant]?**
- **Did the Japanese underestimate the size of the maximum credible earthquake and tsunami that could affect the plants?**
- **Was the damage to the Japanese nuclear plants mostly from the earthquake or the tsunami?**
- **What level of earthquake hazard are the US reactors designed for?**
- **Are the Japanese nuclear plants similar to US nuclear plants?**
- **What would the effect be on [plant X] if a 9.0 earthquake hit?**
- **What would the effect be on [plant X] if a subsequent tsunami hit?**
- **SFP question**
-



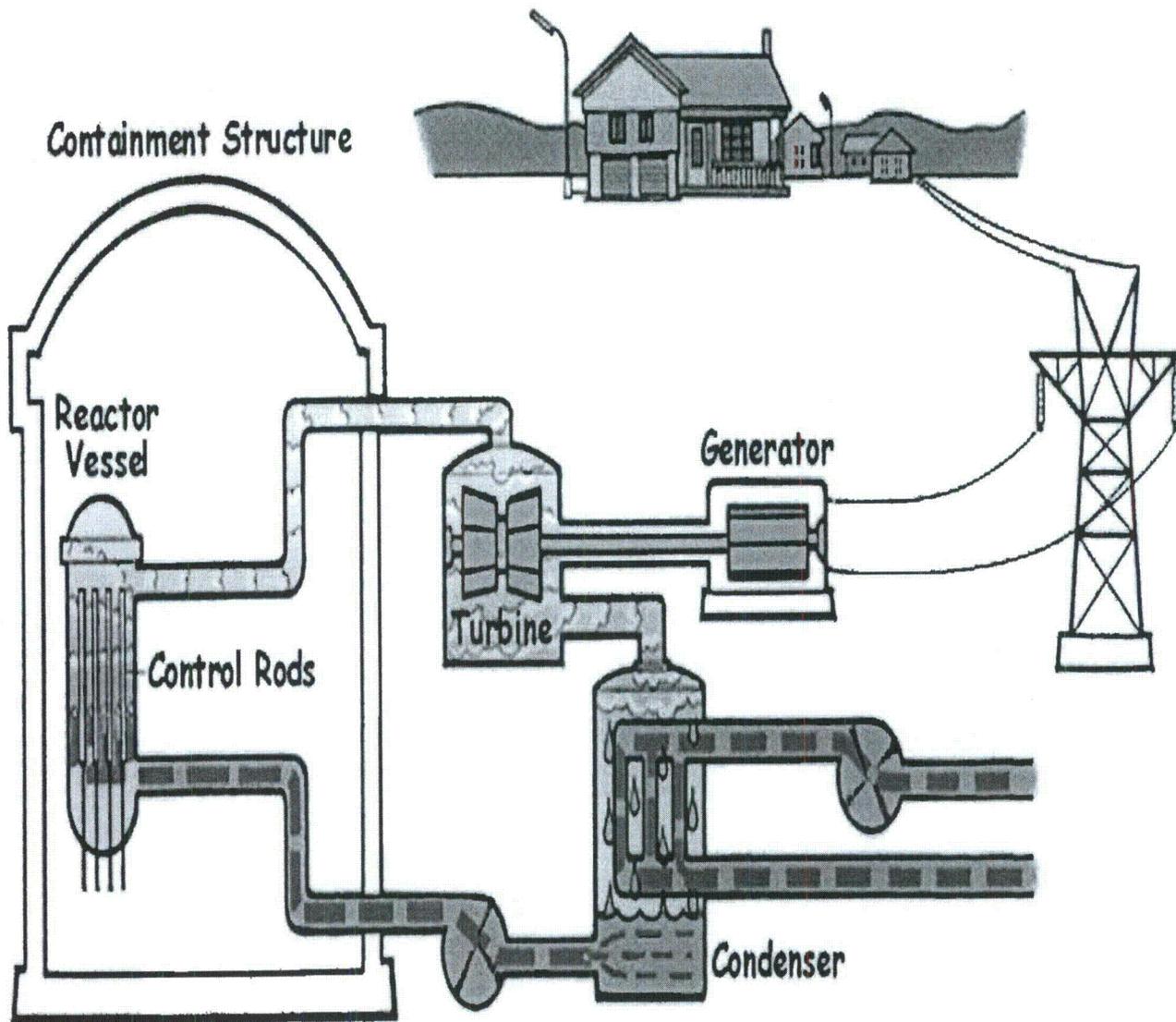
End

Research and Test Reactors



▲ Licensed/Currently Operating (31)

Generic BWR





United States Nuclear Regulatory Commission

Protecting People and the Environment

▶ Reactor Service Floor
(Steel Construction)

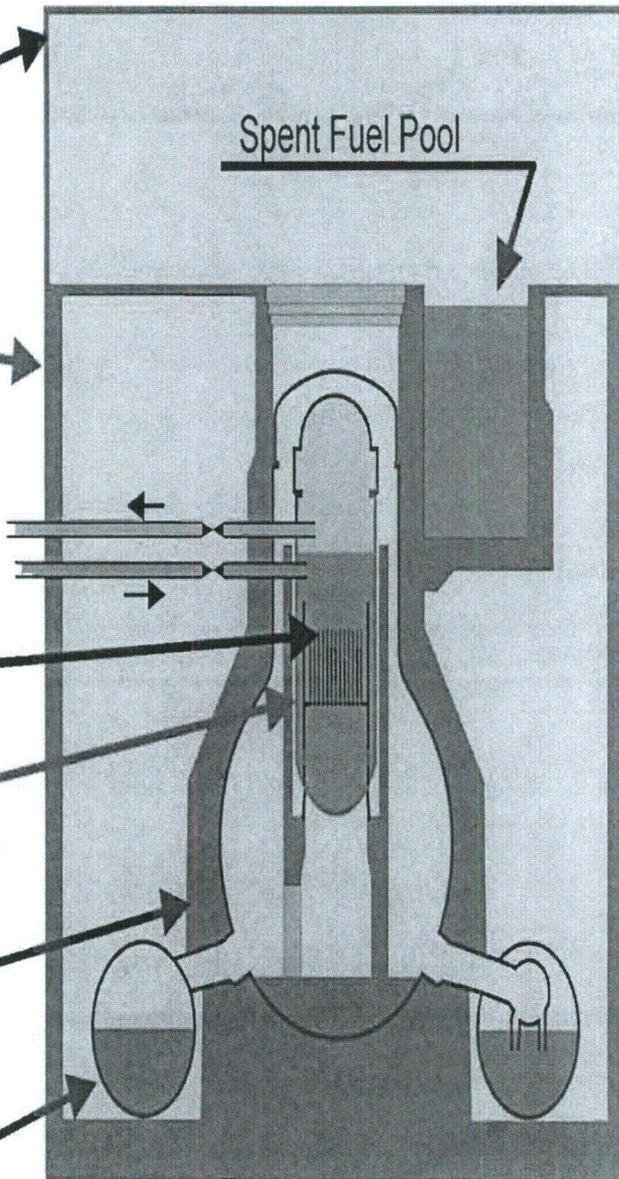
▶ Concrete Reactor Building
(secondary Containment)

▶ Reactor Core

▶ Reactor Pressure Vessel

▶ Containment (Dry well)

▶ Containment (Wet Well)



From: Milligan, Patricia
Sent: Friday, April 01, 2011 10:27 AM
To: Kozal, Jason; Rothschild, Trip
Cc: blake.velde@dm.usda.gov
Subject: RE: Radiation issues

I agree with Jason- we discussed this in great detail wrt IND fall out issues. I believe USDA has a plan in place for radiologically contaminated livestock. Depending on the isotope, isolation and decay may be an option.

From: Kozal, Jason
Sent: Friday, April 01, 2011 10:05 AM
To: Rothschild, Trip; Milligan, Patricia
Cc: 'Blake.Velde@dm.usda.gov'
Subject: Re: Radiation issues

Trip,

Very interesting question. I think that it very well may fall under the EPA. We have had many discussions around animal carcass removal on the National Response Team (NRT). The reason the carcasses have existed has been varied- mad cow, IND, floods, ect, but my recollection has been it is an EPA jurisdiction. There was discussion at one time of the challenges in disposing of radiologically contaminated bio-hazard waste, but I think it was left as a "we will cross that bridge when we come to it" issue.

USDA's NRT member is has been involved more deeply in these discussions than I have been. His name is Blake Velde at Blake.Velde@dm.usda.gov. He is a senior member of the NRT. I would recommend that Mr. Linden also reach out to him for additional insights on the issue.

I copied Trish Milligan on this e-mail to provide any additional information (or corrections) as necessary.

Sent from an NRC BlackBerry
Jason W Kozal

(b)(6)

From: Rothschild, Trip
To: Kozal, Jason
Sent: Fri Apr 01 08:39:12 2011
Subject: FW: Radiation issues

From: LINDEN, RALPH [mailto:RALPH.LINDEN@OGC.USDA.GOV]
Sent: Friday, April 01, 2011 8:31 AM
To: Rothschild, Trip
Subject: RE: Radiation issues

I really appreciate it. Our concern, not surprising, arises with dairy cows. To the extent we have milk contaminated by radiation, we can compensate producers but no other party in the supply chain. The question then becomes what to do

with the cows and any attendant producer losses if they are destroyed (not your concern, thankfully) but we are in a quandary about their movement.

Ralph A. Linden
Associate General Counsel
International Affairs, Commodity Programs
and Food Assistance Programs
USDA, Office of the General Counsel
1400 Independence Avenue, S.W.
Room 2018 - South Building
Washington, D.C. 20250-1403
202-720-6883
202-720-8957 (fax)

From: Rothschild, Trip [mailto:Trip.Rothschild@nrc.gov]
Sent: Friday, April 01, 2011 7:45 AM
To: LINDEN, RALPH
Subject: RE: Radiation issues

Will get back to you on this.

From: LINDEN, RALPH [mailto:RALPH.LINDEN@OGC.USDA.GOV]
Sent: Thursday, March 31, 2011 4:46 PM
To: Rothschild, Trip
Subject: Radiation issues

I am an Associate GC at USDA who was on the inter-agency call yesterday. One of the issues we are looking at is the process if US livestock are determined to be contaminated by radiation. It is our understanding that if such an unlikely occurrence would happen from an incident linked to a non-NRC-licensed facility, like the Japanese plant, EPA would have jurisdiction on movement and disposal of the affected animal. But, based on the inter-agency training exercise of last year, if the incident occurred as the result of action at a NRC-licensed plant, that NRC would have jurisdiction on removal and disposition of such affected livestock.

Could you please comment on this?

Thank you.

From: Milligan, Patricia
Sent: Thursday, March 31, 2011 12:13 PM
To: Hoc, PMT12
Subject: RE: Contact with the British Embassy: Fukushima-related questions

understand, only concerned about conflicting messaging, etc getting out to the public via other sources. we cannot expect the same sensitivity from other countries

Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
MS T B46M
Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Hoc, PMT12
Sent: Thursday, March 31, 2011 12:03 PM
To: Milligan, Patricia
Subject: RE: Contact with the British Embassy: Fukushima-related questions

Trish, I have been told to pass along to you that this item was already transmitted to the UK and they provided us with their source term based on a Commission SECY saying that NRC can share internal sensitive information with the UK, France and Canada. Lia02 coordinated this response about a week ago. I can direct them to the NRR Sharepoint document and the Blog in the future. I will make note of that in the PAAD log.

From: Milligan, Patricia
Sent: Thursday, March 31, 2011 11:03 AM
To: Hoc, PMT12
Subject: RE: Contact with the British Embassy: Fukushima-related questions

check on the blog under March 22 "All about EPZs" also on the NRR sharepoint where they have vetted Q&As on this event.. I will forward the link in a separate email.

Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
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301-415-2223
Blackberry (b)(6)

From: Hoc, PMT12
Sent: Thursday, March 31, 2011 10:40 AM

CA/131

To: Milligan, Patricia
Subject: RE: Contact with the British Embassy: Fukushima-related questions

Are you referring to the press release on the blog about the 50 mi decision?

From: Milligan, Patricia
Sent: Thursday, March 31, 2011 10:10 AM
To: Hoc, PMT12
Subject: RE: Contact with the British Embassy: Fukushima-related questions

did you check the blog?
Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
MS T B46M
Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Hoc, PMT12
Sent: Thursday, March 31, 2011 9:56 AM
To: Milligan, Patricia
Subject: RE: Contact with the British Embassy: Fukushima-related questions

Trish,

We cannot find that on the NRC website.

From: Milligan, Patricia
Sent: Thursday, March 31, 2011 9:16 AM
To: Hoc, PMT12
Cc: McDermott, Brian
Subject: RE: Contact with the British Embassy: Fukushima-related questions

I am a little concerned that we sent the email on the 50 miles to the British embassy. I think that it is important that we refer all to the qualitative explanation of the decision that has been posted on the NRC website. thank you!

Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
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Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Hoc, PMT12
Sent: Thursday, March 31, 2011 1:21 AM
To: Milligan, Patricia

Cc: Hoc, PMT12

Subject: FW: Contact with the British Embassy: Fukushima-related questions

Trish,

(b)(5)

From: Hoc, PMT12

Sent: Wednesday, March 30, 2011 6:34 PM

To: LIA02 Hoc

Subject: RE: Contact with the British Embassy: Fukushima-related questions

Please send the following in response to the British Embassy.

1. NRC is providing scientific advice regarding the evacuation of US resident within 50 miles of the Fukushima reactor. This advice combined with that of the US Department of Energy and other experts are being used by the Department of State for travel advisories for Japan.
2. We can provide the basis for NRC recommendations regarding evacuation within 50 miles of the Fukushima facility for US citizens. As follows:

(b)(5)

(b)(5)

From: LIA02 Hoc
Sent: Wednesday, March 30, 2011 4:57 PM
To: Hoc, PMT12
Subject: FW: Contact with the British Embassy: Fukushima-related questions

See below.

Thanks.

Gerri

From: Liz.Kane@fco.gov.uk [mailto:Liz.Kane@fco.gov.uk]
Sent: Wednesday, March 30, 2011 4:32 PM
To: LIA02 Hoc
Subject: RE: Contact with the British Embassy: Fukushima-related questions

Gerri

Thank you for the email and speedy response.

What I am trying to understand is both a process and a substance question. On the process, I'm trying to establish which part of the US government is providing the scientific advice on which the US is deciding policy such as travel advice. This is related to the substance question in the sense that I'd like to understand what that scientific advice is about radiation levels within the 50 mile exclusion zone and, in particular, what the scientific worst-case scenario for Fukushima is now.

Happy to discuss over the phone if that is easier.

Liz

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: 30 March 2011 16:01
To: Liz Kane (Restricted)
Subject: FW: Contact with the British Embassy: Fukushima-related questions

Liz –

Can you please identify what you mean by "scientific evaluations" so I can direct your inquiry to the right staff. Is this a dose-type inquiry, or is it a pumps and valves type inquiry.

Thanks.

Gerri Fehst

From: Abrams, Charlotte
Sent: Wednesday, March 30, 2011 3:55 PM
To: Liz.Kane@fco.gov.uk
Cc: LIA02 Hoc; LIA03 Hoc
Subject: RE: Contact with the British Embassy: Fukushima-related questions

Liz –

I am forwarding your message to our Operations Center. I have not been on duty there for several days and am not as up to date on the situation as the International Liaison staff on duty there. Someone from that location will get back to you right away to get some specifics on your question so that it can be directed to the right person. I can tell you that technical representatives from the UK Health and Safety Executive Nuclear Safety Directorate have been on daily (sometimes twice daily) telephone calls with NRC's technical staff.

From: Liz.Kane@fco.gov.uk [mailto:Liz.Kane@fco.gov.uk]
Sent: Wednesday, March 30, 2011 3:40 PM
To: Abrams, Charlotte
Subject: Contact with the British Embassy: Fukushima-related questions

Dear Charlotte

Mary Pietrzyk gave me your contact information as I asked her for a contact in the NRC with whom I could discuss a Fukushima-related question. I'm sure that you are really busy at the moment, but would you be able to give me a ring (or send me your number please) so that I can ring you. I have an urgent enquiry from the Foreign Office in London about the scientific evaluations of the situation in Fukushima.

Thank you.

Liz

Dr Liz Kane
First Secretary, Energy
British Embassy
3100 Mass Ave NW, Washington D.C., 20008-36, USA
Office: +1 202 518 3205 FTN: 8430 3205

Mobile: (b)(6)

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From: Milligan, Patricia
Sent: Thursday, March 31, 2011 10:20 AM
To: Rihm, Roger
Subject: RE: Request for Input

that is a good question. not sure what we would be doing as this is different mission that what we normally do...we would defer to states and fema but that isn't quite appropriate here so i suppose we could say "NRC will continue to work with its federal partners to ensure that State and locals are provided the assistance necessary to evaluate the impact of any radiation from the Fukushima reactors that may reach the US" The advisory team is supposed to do this.. our job is to talk to them and support them..feel free to massage the message, but even if the accident were in the US we would still support the advisory team

Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
MS T B46M
Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Rihm, Roger
Sent: Thursday, March 31, 2011 9:53 AM
To: Milligan, Patricia
Subject: RE: Request for Input

Thanks you, but can you also suggest a sentence about what kind of communication we would be doing when states and counties are taking actions?

From: Milligan, Patricia
Sent: Thursday, March 31, 2011 9:41 AM
To: Rihm, Roger
Subject: RE: Request for Input

Roger

delete this sentence: If necessary, protective action decisions could include actions such as sheltering, evacuating, or taking potassium iodide.

U.S. residents should listen to their states and counties, whose responsibility it is to make the appropriate decisions to ensure the health and safety of their citizens. Such decisions could include preventing contaminated foods from reaching the marketplace, recommend that all local produce be thoroughly rinsed prior to consumption, and recommending that feed and dairy animals be fed stored feed and not allowed to graze.

Note: the rad levels reaching the US will NEVER reach levels that would require evac shelter or KI. also we would NEVER recommend KI and allow consumption of contaminated food. additionally using shelter, evac and KI implies that the levels could be dangerous or could approach "dangerous" levels.

CA | 132

ricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
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Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Rihm, Roger
Sent: Thursday, March 31, 2011 9:11 AM
To: Milligan, Patricia
Subject: FW: Request for Input

Trish, I was wondering if you had a few minutes to look at my request below?

From: Rihm, Roger
Sent: Wednesday, March 30, 2011 10:38 AM
To: Milligan, Patricia
Subject: Request for Input

Trish, I am responding to a letter from Rep. Blumenthal who wrote in about radioactivity from Japan reaching the US. He also wrote to EPA, so there will be a separate, but coordinated response from them with details about Rad Net, etc.

I would like to ADD a sentence or two in my letter that addresses what communicating (with the public) NRC is doing now and would do in the event of harmful levels. (I know, for example, that EPA will be saying they have all their monitoring data on their web site.) Can you suggest an appropriate sentence or two? Thanks!

From: Milligan, Patricia
Sent: Wednesday, March 30, 2011 8:16 AM
To: Merzke, Daniel
Subject: Re: PLE Papers

Ok got that too
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

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

From: Merzke, Daniel
To: Milligan, Patricia
Sent: Wed Mar 30 07:49:16 2011
Subject: RE: PLE Papers

Thanks, Trish. I just reviewed a voice mail from Rebecca, and now it doesn't sound like she's looking for our comments to the first draft. I think she wants the documents that are being prepared for the April deputies meeting. I'll try to contact her this morning and verify exactly what she's looking for.

Dan

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

From: Milligan, Patricia
Sent: Wednesday, March 30, 2011 7:46 AM
To: Merzke, Daniel
Subject: Re: PLE Papers

Yes. When I get back to the office I will send it to you Sent from my NRC Blackberry Patricia A Milligan, CHP RPh

(b)(6)

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

From: Merzke, Daniel
To: Milligan, Patricia
Sent: Wed Mar 30 06:59:18 2011
Subject: FW: PLE Papers

Trish, I think what Rebecca is looking for is the first draft PAG manual where we sent back the 50 pages of comments. Do you happen to still have those files anywhere?

Dan

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

From: Tadesse, Rebecca
Sent: Tuesday, March 29, 2011 4:27 PM
To: Merzke, Daniel
Cc: Brock, Kathryn
Subject: RE: PLE Papers

CA/133

Hi Dan,

I am actually looking for the EPA document that the staff commented on after the PLE meeting that happened in March. I would like to get a copy of both the incoming and the staff comment that went back to EPA.

Thanks
Rebecca

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

From: Merzke, Daniel
Sent: Tuesday, March 29, 2011 3:08 PM
To: Tadesse, Rebecca
Cc: Brock, Kathryn
Subject: PLE Papers

Rebecca, the attached file contains all the papers generated as a result of PLE 3-10. Tab A talks about authorities for cleanup, and Tab B is the paper which has a brief discussion of cleanup standards. The result of the paper was to establish a working group to resolve the differences and come up with a consensus standard. I've also attached the paper that the staff generated to support the last Deputies meeting attended by Mike Weber where the issue was supposed to be resolved, but wasn't. Hopefully this will answer your questions.

Dan

Subject: Health Effects Policy Japan Working Group phone call
Location: phone 202-395-6392, passcode (b)(6)
Start: Wed 3/30/2011 3:00 PM
End: Wed 3/30/2011 3:30 PM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: Hepburn, Matthew

Hello everyone;

This teleconference will provide a brief update to the interagency on issues related to health effects associated with the current situation in Japan. The agenda for our call today is as follows:

Situation update	5 minutes
Passenger/Cargo Decontamination	10 minutes
Food safety, including territories	10 minutes
New issues	5 minutes

Phone 202-395-6392
Passcode (b)(6)

CA 134

From: Milligan, Patricia
Sent: Wednesday, March 30, 2011 6:49 AM
To: Hoc, PMT12; Leeds, Eric; McDermott, Brian; Morris, Scott; Wiggins, Jim
Subject: FYI
Attachments: UNSCEAR Table release comparison of Iodine and Caesium v3.doc

CA/135

NOT FOR DISTRIBUTION

Comparison of Iodine (131) and Caesium (137) release to the environment after the Chernobyl accident, the atmospheric nuclear weapon testing, and the Windscale fire

Radionuclide	Nuclear weapons testing (Total)	Chernobyl accident (1986)	Windscale Fire, UK (1957)
¹³¹ I	675000 PBq	1760 PBq	0.74 PBq
¹³⁷ Cs	948 PBq	85 PBq	0.022 PBq
References	UNSCEAR 2008 (Annex B)	UNSCEAR 2008 (Annex D)	UNSCEAR 2008 (Annex C)

with the current assumptions of IAEA/WMO for the ongoing Fukushima emergency (note that these **preliminary assumptions** must inevitably be extremely uncertain at this stage, and are **certain to change**, possibly significantly). Other groups will no doubt come out with other assessments – hopefully with time they will all converge. UNSCEAR would assess all the available information after the event.

Radionuclide	Release		Total up to 26 March
	Fukushima 14-16 March	Fukushima 17-26 March	Fukushima (14-26 March)
¹³¹ I	<i>1 PBq (total)</i>	<i>0.1 PBq (daily)</i>	<i>~ 2 PBq</i>
¹³⁷ Cs	<i>0.1 PBq (total)</i>	<i>0.01 PBq (daily)</i>	<i>~ 0.2 PBq</i>
References	RSMC Montreal modelling [IAEA/IEC fax from 29 March 2011 05:00 UTC]		

Malcolm Crick/Ferid Shannoun
29 March 2011

Saved under

G:\docs\Emergency Response\Japan Earthquake\IAEA ENAC\Comparison of releases

From: Milligan, Patricia
Sent: Tuesday, March 29, 2011 1:58 PM
To: MacKinney, John A
Subject: RE: 23MAR11 NTAG TELECONFERENCE notes

Have you seen the most recent version?

From: MacKinney, John A [mailto:John.Mackinney@dhs.gov]
Sent: Tuesday, March 29, 2011 1:57 PM
To: Schwab, Margo; Milligan, Patricia
Subject: RE: 23MAR11 NTAG TELECONFERENCE notes

(b)(5)

John MacKinney
Director, Nuclear and Radiological Policy
Office of Policy
U.S. Department of Homeland Security
202-447-3885

(b)(6)

From: prvs=0579bd76e=Margo_Schwab@omb.eop.gov [mailto:prvs=0579bd76e=Margo_Schwab@omb.eop.gov] **On Behalf Of** Schwab, Margo
Sent: Wednesday, March 23, 2011 9:07 PM
To: 'MacKinney, John A'; 'Milligan, Patricia'
Subject: FW: 23MAR11 NTAG TELECONFERENCE notes

(b)(5)

From: Bentz, Julie A.
Sent: Wednesday, March 23, 2011 7:57 PM

To: (b)(6)

(b)(6)

CA/136

(b)(6)

Cc: #RESILIENCE; #TRANSBORDER; Gallagher, Shawn P.; Fetter, Steve; Zerr, Thomas J.; Lowry, Keri M.; Mecher, Carter E.; Szymanski, John; Falcone, Patricia K.; Wolfsthal, Jon B.

Subject: 23MAR11 NTAG TELECONFERENCE notes

Attached please find:

1. the notes from the NTAG teleconference today
2. "Final" Guidance and public statement on Japan drinking water
3. Berkeley measurements of rain water
4. A chart that lays out Standards/Guidelines vs. PAGs. I'd appreciate your input. Purpose of slide is to help our seniors understand the backdrop of our "safety limit" discussions. Feel free to edit/add verbiage/diagrams/etc!

As a reminder, the next NTAG teleconference will be on **Monday, March 28 at 3:30pm** (note new time). Dial in info and agenda to be provided.

Thanks!

Julie

COL(P) Julie A Bentz
Director for Nuclear Defense Policy
National Security Staff
EEOB 379
1650 Pennsylvania Ave NW
Washington DC 20502

(b)(6)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

****Phone Numbers****

CDC Hotline	770-488-7800	
USAID Ops	202-712-0039	RMTPACTSU_DMO@ofda.gov
DOE Ops	202-586-8100	nitops@nnsa.doe.gov
DHS NOC	202-282-8101	
NMCC (DDO)	703-695-0100	
NMCC Japan Crisis Action Element	703-614-6172	
EPA Ops	202.564.3850	eoc.epahq@epa.gov
HHS SOC	202-619-7800	hhs.soc@hhs.gov
NRC Ops	301-816-5100	
DOS Ops	202 -647-4000, #0	
NRC Protective Measures	301-816-5419 (Vince Holahan)	
JS Japan CME desk number	703-614-6702	
AFRRRI	301-295-0267	
FAA Washington Operations Center	202-267-3333	9-AWA-ASH-WOC@faa.gov
FDA EOC	301-796-8240,	Emergency.Operations@fda.hhs.gov

U.S. Ambassador to Japan Statement

Warning For Parents and Caretakers About Radioactive Iodine Detected in Tokyo Drinking Water Supply

March 24, 2011

The Tokyo metropolitan government on Wednesday, March 23, 2011, cautioned residents that infants (aged 0-3 years) should drink only bottled water because radioactive iodine exceeding the limit for that age group was detected in water at a purification plant.

The U.S. Embassy in Japan suggests U.S. citizens who live in Tokyo follow these recommendations. In addition, women who are pregnant or nursing should also follow these recommendations and drink bottled water. This guidance is consistent with the guidance that the United States Government would provide to Americans in the United States under similar circumstances.

U.S. citizens in metropolitan Tokyo can take the following steps to safeguard the health of infants (aged 0-3 years):

- If giving water to infants, use only bottled water.
- Use only bottled water to mix formula, cereal or other infant foods.

Health experts say that changing the water source for infants from tap water to bottled water should be adequate protection from exposure to radioactive iodine. No additional medication, such as potassium iodide (KI), is necessary at this time. Taking KI when it is not needed can harm a person's health.

At this time, no changes in drinking water are recommended for adults because the limit for adults is higher than the amount detected in the water purification plant.

Embassy staff is consulting with health experts and radiation experts to continuously monitor these new developments. If more information becomes available, we will share it with you on the Embassy Web site.

Q and A:

--What are we advising U.S. citizens? Why?

Due to an elevated level of Iodine-131 found at a local Tokyo water purification plant, the Japanese local authorities and we are advising American citizens in Tokyo that infants (aged 0-3), as well as women who are pregnant or nursing, should drink only bottled water.

--Is this consistent with what we would advise in the U.S.?

Yes. It is consistent with the recommendation the U.S. Government would provide Americans in the United States under similar circumstances.

--What is the Japanese standard being used?

The Japanese standard for Iodine-131 in drinking water is 100 becquerels per liter if the water is to be consumed by an infant and 300 becquerels per liter if the water is to be consumed by an adult. The current reported contamination of 210 becquerels per liter is therefore about twice the permitted level for infants and about two thirds of the permitted level for adults, under Japanese regulations.

--What is the U.S. standard?

The U.S. Environmental Protection Agency's published standard for Iodine-131 contamination in drinking water is 3 picocuries per liter, which is equal to about 0.1 becquerels per liter. However, the assumptions underlying the EPA standard for continuous exposure do not apply to the current situation in Japan, which is a temporary exposure resulting from an accidental release. In addition, the science of radiation protection has advanced considerably since the EPA standard was published in 1974. If one uses the latest science and makes the adjustments in the calculations underlying the EPA standard in order to

make it applicable to the temporary exposure occurring in Japan, one obtains a figure practically identical to the standard that the Japanese authorities are applying.

What is the risk of the current Iodine-131 levels to adults drinking the water?

–Short-term exposures at the levels that have been reported do not present significantly increased risks beyond the sensitive populations already identified.

Points to be added from CDC/EPA on bathing and cooking with the water...

(b)(5)

(b)(5)

(b)(5)

(b)(5)

From: Milligan, Patricia
Sent: Tuesday, March 29, 2011 1:57 PM
To: Dempsey, Jeanne
Cc: Cadoux, Claude
Subject: RE: IMPORTANT: Telephone Meeting with NRC to Discuss Medical Capabilities in Tokyo

Hi Jeanne

I speak only as a pharmacist and health physicist.

1. KI is recommended for 10-14 days. Continued dosing beyond that needs careful medical direction as overloading a thyroid gland with stable iodine can suppress thyroid function- Wolff-Chaikoff effect; consideration must be given to risk vs benefit. FDA does advise adults over 40 not to consider use of KI unless doses in excess of 500 rad are expected.
2. See above answer as this also applies. Maximum dosage- the daily dose for an adult is 130 mg. Administering more than this amount would not enhance benefit received as excess iodine is rapidly excreted from the body.
3. KI should be taken in advance of an expected exposure for maximum benefit. Intermittent use is acceptable as long as it is taken at the appropriate time and dose. "Intermittent" –every few days or weeks?

From: Dempsey, Jeanne
Sent: Tuesday, March 29, 2011 11:05 AM
To: Milligan, Patricia
Subject: Fw: IMPORTANT: Telephone Meeting with NRC to Discuss Medical Capabilities in Tokyo

Can you take a look and let me know what you think.

From: Buchholz, Jeri
To: Dempsey, Jeanne; Cadoux, Claude
Sent: Tue Mar 29 10:35:00 2011
Subject: Fw: IMPORTANT: Telephone Meeting with NRC to Discuss Medical Capabilities in Tokyo

How do you guys want to handle this. Do you want me to forward this to michelle evans?

Jeri Buchholz

From: McCoy, Gretchen A (MED) <McCoyGA3@state.gov>
To: Buchholz, Jeri
Cc: Cadoux, Claude; Taylor, Brooks A <TaylorBA@state.gov>
Sent: Tue Mar 29 10:29:03 2011
Subject: RE: IMPORTANT: Telephone Meeting with NRC to Discuss Medical Capabilities in Tokyo

Claude,

I am trying to reach you regarding some questions on KI dosing that have come from our embassy in Japan, for the Japanese health authorities.

Questions:

GA/137

- Can a person take KI every day if they work in an environment of continuing exposure on consecutive days?
- How long period can a person take KI if they have ongoing exposure meeting the recommendations for KI usage? Is there a maximum dosage of KI?
- If a person has intermittent exposures requiring KI usage, can they take the KI intermittently?

I have the FDA's guidance and guidance from REMM, but clarification of the above would help our colleagues in the GOJ.

Thanks for any info you might provide.

Any assistance will be welcome, they need this by COB today if possible. Let me know if you can assist, or recommend where we can go for an answer. Thanks. G

This email is UNCLASSIFIED.

From: Milligan, Patricia
Sent: Tuesday, March 29, 2011 1:17 PM
To: Hoc, PMT12
Subject: RE: possible support for secure video telecon today at 3:30

ok

From: Hoc, PMT12
Sent: Tuesday, March 29, 2011 1:17 PM
To: Milligan, Patricia
Subject: FW: possible support for secure video telecon today at 3:30

Patricia – we have support for the telecom so disregard previous email

Mike

From: Hoc, PMT12
Sent: Tuesday, March 29, 2011 1:09 PM
To: Milligan, Patricia
Subject: possible support for secure video telecon today at 3:30

Patricia,

We received a request from Todd Masse in NSIR to provide support for a teleconference with Admiral Willard (US Navy PACOM) at 3:30 today. The Admiral's possible questions/concerns relate to protective measures for the troops in Japan. Would you be able to support this call (secure video telecom)?

Mike Takacs
PAAD/PMT

CA/138

From: Milligan, Patricia
Sent: Tuesday, March 29, 2011 1:11 PM
To: MacKinney, John A
Subject: RE: Are you ready for a little laugh? - - FW: Fukushima Power Station
Attachments: image001.jpg

Bet that works.

From: MacKinney, John A [mailto:John.Mackinney@dhs.gov]
Sent: Tuesday, March 29, 2011 1:09 PM
To: Milligan, Patricia; Chavez, Richard
Subject: RE: Are you ready for a little laugh? - - FW: Fukushima Power Station

I usually go for barb wire attached to my power drill

John MacKinney
Director, Nuclear and Radiological Policy
Office of Policy
U.S. Department of Homeland Security
202-447-3885

(b)(6)

From: prvs=0621d5ec9=Patricia.Milligan@nrc.gov [mailto:prvs=0621d5ec9=Patricia.Milligan@nrc.gov] **On Behalf Of** Milligan, Patricia
Sent: Tuesday, March 29, 2011 1:07 PM
To: Chavez, Richard; MacKinney, John A
Subject: RE: Are you ready for a little laugh? - - FW: Fukushima Power Station

(b)(5)

From: Chavez, Richard [mailto:Richard.Chavez1@dhs.gov]
Sent: Tuesday, March 29, 2011 12:53 PM
To: MacKinney, John A; Kangior, Mike; Dickerson, Bradley; Hall, Wendy; Conklin, Craig; Fuchs, Matt; Brooks, Marc; Coursey, Bert; Szymanski, John; Bentz, Julie A.; Gallagher, Shawn P.; McDaniel, Kenneth; Mecher, Carter E.; Dolan, Edward M.; Gowadia, Huban; Gorman, Chad; Joseph, Leonard; Milligan, Patricia; DeCair.Sara@epamail.epa.gov; Jutro.Peter@epamail.epa.gov; Collier, Erin; Chavez, Richard; Stern, Warren; Silver, Mariko; Coleman, Norman (NIH/NCI) [E]; brooke2@iInl.gov; Cohn, Alan; Crosswait, Mitch; Johnson, Mike; Bowman, Anu; david.bowman@nnsa.doe.gov; Edwards.Jonathan@epamail.epa.gov; SIMMONS, PATRICK; Gresalfi, Michael; McCarroll, Janis; Brinsfield, Kathryn
Cc: Triner, Donald; DiFalco, Frank
Subject: RE: Are you ready for a little laugh? - - FW: Fukushima Power Station

John,

(b)(5)

Rich

CA/139

Richard M. Chávez
Acting Director, Operations Coordination and Planning
Department of Homeland Security
Office: (202) 282-9580
Vigilance, Unity, Resilience - Comprised of Many, Performing As One



From: MacKinney, John A [mailto:John.Mackinney@dhs.gov]
Sent: Tuesday, March 29, 2011 11:10 AM
To: Kangior, Mike; Dickerson, Bradley; Hall, Wendy; Conklin, Craig; Fuchs, Matt; Brooks, Marc; Coursey, Bert; Szymanski, John; Bentz, Julie A.; Gallagher, Shawn P.; McDaniel, Kenneth; Mecher, Carter E.; Dolan, Edward M.; Gowadia, Huban; Gorman, Chad; Joseph, Leonard; Milligan, Patricia; DeCair.Sara@epamail.epa.gov; Jutro.Peter@epamail.epa.gov; Collier, Erin; Chavez, Richard; Stern, Warren; Silver, Mariko; Coleman, Norman (NIH/NCI) [E]; brooke2@llnl.gov; Cohn, Alan; Crosswait, Mitch; Johnson, Mike; Bowman, Anu; david.bowman@nnsa.doe.gov; Edwards.Jonathan@epamail.epa.gov; SIMMONS, PATRICK; Gresalfi, Michael; McCarroll, Janis; Brinsfield, Kathryn
Subject: Are you ready for a little laugh? - - FW: Fukushima Power Station

(b)(5)

John MacKinney
Director, Nuclear and Radiological Policy
Office of Policy
U.S. Department of Homeland Security
202-447-3885

(b)(6)

Sent: Wednesday, March 23, 2011 5:02 PM
To: MacKinney, John A
Subject: Fukushima Power Station

Director MacKinney,

I may owe you an apology. I was contacted by a person who works for General Electric (GE), and I was asked if I knew anyone in DHS who a GE consultant could contact regarding the Fukushima reactor issue. As I pursued a point of contact in DHS, I asked that the consultant send me some information regarding his understanding of the issue. A short time ago I received the below email. The individual has an interesting resume, but his solution to the problem is not what I had expected to receive.

Thank you for your time. Please let me know how I can be of assistance to you.

Best Regards,
Tom

Dear Mr. XXXXX,

My name is (b)(6)

I'm specializing on solving non-traditional problems (enclosed please find my resume).

Regarding Fukushima power station catastrophe, how to resolve this problem.

The fast liquidation of this problem based on the principle of separation of radioactive materials into removable splinters and their dispersion by surrounding surface, from where they must be later removed for recycling or burial. At that, it is inadmissible to blast reactors, as it can lead to nuclear explosion. So, I see only one way – to shoot down the reactors, for example, from Gatling guns, such as GAU-8, from tanks or helicopters, that provide biological protection of crew. For successful finishing this operation, it is necessary to have enough ammunition for continuous destruction of all reactors, from top to basement, without interruptions. I think, that this is most fast, effective and chip way to solve this problem.

Even electrical energy supply succeeds to cool the reactors, this process still will be uncontrollable and critically dangerous, and will take huge amount of resources in immense future, thus absolutely unacceptable. Unfortunately, there's only one way to liquidate consequences of this breakdown – the military way. By means of temporary local contamination of the controlled area with the following deactivation – to prevent global irreversible catastrophe. Scheme, containing the sequence of reactor parts' destruction should be supplied by manufacturer.

Truly yours

(b)(6)

From: McDermott, Brian
Sent: Tuesday, March 29, 2011 9:59 AM
To: Milligan, Patricia
Subject: Re: EPA has long term reentry for US Citizens at Fukushima

Any success in getting info on this panel?

Brian

Brian J. McDermott
(b)(6) mobile

From: Milligan, Patricia
To: Morris, Scott; McDermott, Brian; Kozal, Jason; Marshall, Jane
Sent: Mon Mar 28 15:47:12 2011
Subject: EPA has long term reentry for US Citizens at Fukushima

Apparently there was/is a deputies meeting or working group to develop this. Are we involved in this??? If not, how do we get involved. Lee Veal from EPA is leading the effort.

CA/140

From: Milligan, Patricia
Sent: Friday, March 25, 2011 4:22 PM
To: (b)(6)
Subject: FW: ACTION: Task NSIR to support preparation of testimony

Importance: High

From: Rihm, Roger
Sent: Friday, March 25, 2011 8:46 AM
To: Milligan, Patricia
Cc: Landau, Mindy
Subject: RE: ACTION: Task NSIR to support preparation of testimony
Importance: High

Thank you!

Mindy and I have reviewed and only have one significant suggestion. Before you launch into the discussion on the 50 mile zone in Japan, are there other elements of EPP program that should be mentioned, e.g., the fact that we do drills? Sort of "round out" that discussion on pages one and two.

Mike WOULD like you to prepare him a backgrounder along the lines you suggested.

Would you be available to accompany him on Weds AM if he decides that is what he would like?

I am going to pass along your testimony to OCA for their review (they're anxious to see it), but suggest to them that you may be providing another paragraph or so addressing the first point above.

Thanks again.

From: Milligan, Patricia
Sent: Thursday, March 24, 2011 5:15 PM
To: Rihm, Roger
Cc: Landau, Mindy
Subject: RE: ACTION: Task NSIR to support preparation of testimony

I think that Mike/Marty ought to be prepared to answer any questions about the planning basis and its application for multi unit sites ; questions about NRC KI program; questions about the adequacy of the current EP requirements given that "you can't evacuate"; why EP is not in license renewal.

Should I prepare a backgrounder for them?

From: Rihm, Roger
Sent: Tuesday, March 22, 2011 2:11 PM
To: Milligan, Patricia
Cc: Landau, Mindy
Subject: FW: ACTION: Task NSIR to support preparation of testimony
Importance: High

CA / 141

Please also give consideration to what background materials/briefing Marty or Mike might need in order to be able to respond to questions.

From: Rihm, Roger
Sent: Tuesday, March 22, 2011 1:59 PM
To: RidsEdoMailCenter Resource; Clayton, Kathleen
Cc: Milligan, Patricia; Landau, Mindy; Evans, Michele; Jaegers, Cathy
Subject: ACTION: Task NSIR to support preparation of testimony
Importance: High

Please prepare a green ticket to NSIR to accomplish the following:

Prepare testimony for Marty Virgilio (or Mike Weber) to give before the House Transportation and Infrastructure Committee, Subcommittee on Economic Development, Public Buildings, and Emergency Management on March 30, 2011. The subject is emergency planning and preparedness for commercial nuclear reactors. It should reference/briefly address our 50-mile evacuation recommendation for the ongoing Japanese events. It should be approximately 2 – 3 double-spaced pages in length. A draft should be provided electronically to Roger Rihm, OEDO, NLT COB March 24th to allow time for OEDO, OCA, and Commission review. Testimony will need to be finalized by COB March 28th.

Good afternoon, Mr./Ms Chairman and members of the Subcommittee. I am pleased to appear before you on behalf of the United States Nuclear Regulatory Commission (NRC) to discuss our emergency planning and preparedness programs at nuclear power facilities in the United States and to discuss the protective action guidance recently issued by the NRC to American citizens in Japan in response to the serious problems at the Fukushima 1 nuclear power plant site.

NRC's primary mission is to regulate nuclear reactors, materials and waste facilities in a manner that protects the health and safety of the public and promotes the common defense and security. Emergency preparedness is a key element of the "defense in depth" safety philosophy we employ for nuclear power plants. This philosophy: ensures high quality in design, construction, and operation of nuclear power plants; requires redundant safety systems that reduce the chances that malfunctions will lead to accidents; and recognizes that in spite of all these precautions, accidents could occur. That is why, for example, containment structures and other safety features are required to minimize the potential for the release of fission products off site. Through emergency planning and preparedness, additional mechanisms are in place to protect the public in the unlikely event that these barriers were to fail.

For planning purposes, we define two planning zones around nuclear power plant sites. The

planning zones are based on a study of accidents, known as the WASH 1400 report, that examined a range of events from design basis accidents to catastrophic severe accidents. The study made a number of very conservative assumptions regarding the performance of safety equipment, the radionuclides in the core that could be released as well as the timing of the release. The first zone is an area covering about 10 miles in all directions around nuclear power plants where the greatest potential for radiological effects from a release exists. Planning for this area is comprehensive and includes such protective actions as evacuation, sheltering and potassium iodide, as appropriate, for members of the public. Consideration of these protective actions is prompted at very low projected dose levels. A second extended planning zone of about 50 miles is also established around each plant to deal with potential lower-level, long-term risks primarily due to exposure from consumption of contaminated food, milk, and water. This comprehensive planning within the 10 and 50 mile EPZ provides a substantial basis for expansion of response efforts in the event that this is necessary.

Let me now address the NRC's recent protective action recommendation for U.S citizens in Japan evacuate out to 50 miles from the Fukushima Daiichi site. That decision was based on best information available at that time. The information flow from the Fukushima site was

often confusing and conflicting. The NRC was receiving its information from the same open sources available to everyone; such as CNN. We based our assessment on the conditions as we were able to determine; Units 1, 2, and 3 appeared to have suffered significant damage as a result of reported hydrogen explosions, Unit 4 was in a refueling outage and its entire core had been transferred to the spent fuel pool a little more than 3 months earlier so there was fresh fuel in the spent fuel pool that was in danger of overheating if level dropped, and there were indications that was happening. Additionally, there were some radiation monitors that were showing very high levels of radiation on the plant site which would pose challenges to plant crew attempting to stabilize the reactors and there were some offsite readings indicating that fuel damage had occurred. This situation was unprecedented. This is a 6 unit site and 4 of the units were facing extraordinary challenges. The staff performed a series of calculations to assess possible offsite consequences. We understood that some of our assumptions were conservative. However, we were unable to discuss or verify our assumptions with the licensee or our Japanese counterparts. In the United States, the NRC has resident inspector staff at the plants that can report back to the Region and Headquarters on conditions as they are evolving, we are able to readily access "live-time" plant parameters and radiation monitors, as well as talk directly to plant staff and emergency management officials which enables us to refine our

understanding and consequence assessments. With the Fukushima event we had to make our best decision with what we had available. The Emergency Preparedness framework provides for the expansion of the emergency planning zones as conditions require. Acting in accordance with this framework and with the best information available at the time, the NRC determined that evacuation out to 50 miles for U.S. Citizens was an appropriate course of action.

From: Milligan, Patricia
Sent: Friday, March 25, 2011 3:38 PM
To: Rihm, Roger; Landau, Mindy
Subject: Congressional Hearing March 30 2011.docx
Attachments: Congressional Hearing March 30 2011.docx

Revised see what you think

CA/142

Good afternoon, Mr./Ms Chairman and members of the Subcommittee. I am pleased to appear before you on behalf of the United States Nuclear Regulatory Commission (NRC) to discuss our emergency planning and preparedness programs at nuclear power facilities in the United States and to discuss the protective action guidance recently issued by the NRC to American citizens in Japan in response to the serious problems at the Fukushima 1 nuclear power plant site.

NRC's primary mission is to regulate nuclear reactors, materials and waste facilities in a manner that protects the health and safety of the public and promotes the common defense and security. Emergency preparedness is a key element of the "defense in depth" safety philosophy we employ for nuclear power plants. This philosophy: ensures high quality in design, construction, and operation of nuclear power plants; requires redundant safety systems that reduce the chances that malfunctions will lead to accidents; and recognizes that in spite of all these precautions, accidents could occur. That is why, for example, containment structures and other safety features are required to minimize the potential for the release of fission products off site. Through emergency planning and preparedness, additional mechanisms are in place to protect the public in the unlikely event that these barriers were to fail.

The NRC emergency preparedness and planning regulations are extensive and require the licensee to develop and demonstrate an effective emergency plan prior to initial startup. The

nuclear power plant operator is required to provide extensive emergency response training to emergency plant workers; for example, severe accident management training to control room operators, and demonstrate personnel response in a rigorous drill and exercise program. This program includes an every other year full participation exercise that engages both the offsite and onsite response organizations. These exercises are evaluated by both FEMA (offsite) and NRC (onsite) staff. In addition, the NRC performs periodic emergency preparedness inspections of the facility. NRC resident inspectors also observe licensee on-site emergency drills and exercises. It is safe to say that over the 30 plus years of operating history and in 104 operating nuclear power plants, there have been thousands of drills and exercises designed to ensure optimum response to abnormal and emergency conditions.

For planning purposes, we define two planning zones around nuclear power plant sites. The planning zones are based on a study of accidents, known as the WASH 1400 report, that examined a range of events from design basis accidents to catastrophic severe accidents.

The study made a number of very conservative assumptions regarding the performance of safety equipment, the radionuclides in the core that could be released as well as the timing of the release. The first zone is an area covering about 10 miles in all directions around nuclear power plants where the greatest potential for radiological effects from a release

exists. Planning for this area is comprehensive and includes such protective actions as evacuation, sheltering and potassium iodide, as appropriate, for members of the public. Consideration of these protective actions is prompted at very low projected dose levels. A second extended planning zone of about 50 miles is also established around each plant to deal with potential lower-level, long-term risks primarily due to exposure from consumption of contaminated food, milk, and water. This comprehensive planning within the 10 and 50 mile EPZ provides a substantial basis for expansion of response efforts in the event that this is necessary.

Let me now address the NRC's recent protective action recommendation for U.S citizens in Japan evacuate out to 50 miles from the Fukushima Daiichi site. That decision was based on best information available at that time. The information flow from the Fukushima site was often confusing and conflicting. The NRC was receiving its information from the same open sources available to everyone; such as CNN. We based our assessment on the conditions as we were able to determine; Units 1, 2, and 3 appeared to have suffered significant damage as a result of reported hydrogen explosions, Unit 4 was in a refueling outage and its entire core had been transferred to the spent fuel pool a little more than 3 months earlier so there was fresh fuel in the spent fuel pool that was in danger of overheating if level dropped, and there were

indications that was happening. Additionally, there were some radiation monitors that were showing very high levels of radiation on the plant site which would pose challenges to plant crew attempting to stabilize the reactors and there were some offsite readings indicating that fuel damage had occurred. This situation was unprecedented. This is a 6 unit site and 4 of the units were facing extraordinary challenges. The staff performed a series of calculations to assess possible offsite consequences. We understood that some of our assumptions were conservative. However, we were unable to discuss or verify our assumptions with the licensee or our Japanese counterparts. In the United States, the NRC has resident inspector staff at the plants that can report back to the Region and Headquarters on conditions as they are evolving, we are able to readily access "live-time" plant parameters and radiation monitors, as well as talk directly to plant staff and emergency management officials which enables us to refine our understanding and consequence assessments. With the Fukushima event we had to make our best decision with what we had available. The Emergency Preparedness framework provides for the expansion of the emergency planning zones as conditions require. Acting in accordance with this framework and with the limited information available at the time, the NRC determined that evacuation out to 50 miles for U.S. Citizens was an appropriate course of action.

From: Milligan, Patricia
Sent: Friday, March 25, 2011 3:28 PM
To: McIntyre, David
Subject: RE: Associated Press getting in touch re: NRC's use of RadNet data

How 'bout "we work with States to develop"

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

From: McIntyre, David
Sent: Friday, March 25, 2011 3:28 PM
To: Milligan, Patricia
Subject: RE: Associated Press getting in touch re: NRC's use of RadNet data

Fair to say we advise states on their protective action recommendations?

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

From: Milligan, Patricia
Sent: Friday, March 25, 2011 3:27 PM
To: McIntyre, David
Subject: RE: Associated Press getting in touch re: NRC's use of RadNet data

Only if we think they are way off base. We only confirm them. If we disagree we will say so, but once the decision is made we are good little soldiers and march on.

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

From: McIntyre, David
Sent: Friday, March 25, 2011 3:26 PM
To: Milligan, Patricia
Subject: RE: Associated Press getting in touch re: NRC's use of RadNet data

Thanks. Don't we recommend protective measures to the states during events?

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

From: Milligan, Patricia
Sent: Friday, March 25, 2011 3:24 PM
To: McIntyre, David
Subject: RE: Associated Press getting in touch re: NRC's use of RadNet data

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

From: McIntyre, David
Sent: Friday, March 25, 2011 3:15 PM
To: Milligan, Patricia
Subject: FW: Associated Press getting in touch re: NRC's use of RadNet data

CA/143

From: Milligan, Patricia
Sent: Friday, March 25, 2011 12:12 PM
To: Wach, Lisa
Subject: Re: Pre-Alignment Meeting; Japan Radiological Impacts

Likely not to be there. Still downtown at meeting
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Wach, Lisa
To: Moore, Scott; Cool, Donald; Holahan, Vincent; Sherbini, Sami; Brock, Terry; Schaffer, Steven; Piccone, Josephine; Milligan, Patricia; Bush-Goddard, Stephanie; Jones, Cynthia; Schaperow, Jason; Shaffer, Vered; Lewis, Robert
Cc: Gibson, Kathy
Sent: Fri Mar 25 10:23:24 2011
Subject: Pre-Alignment Meeting; Japan Radiological Impacts

When: Friday, March 25, 2011 1:00 PM-2:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: HQ-CSB-03C19-18p

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

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

Bridgeline Number: 888-455-8827

Passcode: (b)(6)

CA/144

From: Milligan, Patricia
Sent: Friday, March 25, 2011 12:04 PM
To: Reckley, William
Subject: Re: Sandia report on EPZ

Don't release this. Thank you
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Reckley, William
To: Milligan, Patricia
Sent: Thu Mar 24 15:29:21 2011
Subject: RE: Sandia report on EPZ

DOE plans to take up the work (either through funding an ANS standards effort or through a direct effort by one of the laboratories) of providing the underlying basis or foundation for possible changes to the EPZ – that is work in defining the events and offsite dose consequence analysis (some of the work they would likely contract to people like D Lever to pursue). So the reason DOE HQ (this is Dick Black asking) is just to see where things might go such that they can begin efforts to arrange for the contracts (ANS, Lab, or both) to begin the next stage. The ANS white paper on EPZ is being deferred until the Japan events are evaluated (largely at DOE's request since Dick and John Kelly (Deputy Asst Secretary, Office of Nuclear Energy) are involved in that effort). The initial plan somewhat mirrored ours in that the white paper would lay out a concept (similar to dose-based EPZ sizing) and then recommend that an ANS standard or other activity (such as DOE research) to provide the implementation details. If we were to provide to DOE/NE, we could instruct that the Sandia paper was still considered OOU and should not be shared pending our making it public (around the time of the SECY paper).

From: Milligan, Patricia
Sent: Thursday, March 24, 2011 12:38 PM
To: Reckley, William
Cc: Costa, Arlon; McDermott, Brian
Subject: RE: Sandia report on EPZ

YES I would mind. DO NOT SHARE THIS WITH THEM AT THIS TIME
Why do they want this?

From: Reckley, William
Sent: Thursday, March 24, 2011 12:38 PM
To: Milligan, Patricia
Cc: Costa, Arlon
Subject: Sandia report on EPZ

DOE has asked if we can share with them the Sandia report on EPZ size. Would you mind if we provided? We are just trying to make sure the two organizations coordinate activities and communications. They are basically on the same page as we are in terms of deferring some activities and interactions pending further evaluations of the information from Japan. Thanks..

*William D. Reckley, Chief
Advanced Reactors Branch 1
Advanced Reactor Program*

CA | 145

Office of New Reactors
william.reckley@nrc.gov
(301) 415-7490

From: Milligan, Patricia
Sent: Friday, March 25, 2011 2:33 PM
To: McDermott, Brian
Subject: FW: Help: KI

What I had mentioned earlier...

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

From: Marinissen, Maria Julia (HHS/ASPR/OPP) [mailto:Maria.Marinissen@hhs.gov]
Sent: Friday, March 25, 2011 10:07 AM
To: Milligan, Patricia
Subject: Help: KI

Dear Tricia,

You must be sick of my emails on KI. I'm in a meeting with the leadership. I need some quick help. Is there is info from NRC (a study) that says that LIQUID KI is good after the expiration date? It's kind of urgent...

Thanks!!!

MJ

Maria Julia Marinissen, Ph.D.
Director, Division of International Health Security HHS/ASPR/OPP
Ph: 202 205 4214
BB: (b)(6)

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

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Friday, March 25, 2011 10:04 AM
To: Marinissen, Maria Julia (HHS/ASPR/OPP)
Subject: Accepted: Invitation from HHS to discuss potential acquisition of KI

CA 146

Subject: Invitation from HHS to discuss potential acquisition of KI
Location: Teleconference: 1-866-566-3290; Passcode: (b)(6)

Start: Fri 3/25/2011 11:30 AM
End: Fri 3/25/2011 12:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Marinissen, Maria Julia (HHS/ASPR/OPP)

Required Attendees: (b)(6)
(b)(6)
(b)(6)

Importance: High

When: Friday, March 25, 2011 11:30 AM-12:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: Teleconference: 1-866-566-3290; Passcode (b)(6)

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

USG colleagues,
Good morning. Would you be available this morning to have a short conference call with HHS about POTENTIAL acquisition of KI in the near term? Based on the current situation in Japan and in anticipation of potential future needs in the US, we would like to discuss this issue with our USG partners to coordinate to the extent possible.

Please let me know if you and/or appropriate representatives from your agencies are available today at 11:30 am. I would appreciate if you can RSVP.

Thanks in advance,
Maria Julia Marinissen, PhD
Director
Division of International Health Security
Office of Policy and Planning
Office of the Assistant Secretary for Preparedness and Response
U.S. Department of Health and Human Services
200 Independence Ave. S.W., Room 638G-Office #43
Washington, DC 20201
Tel: (202) 205 4214 (w); (b)(6) (bb)
E-mail: Maria.Marinissen@hhs.gov

CA 147

From: Milligan, Patricia
Sent: Friday, March 25, 2011 8:57 AM
To: Marinissen, Maria Julia (HHS/ASPR/OPP)
Subject: RE: Invitation from HHS to discuss potential acquisition of KI

ok

From: Marinissen, Maria Julia (HHS/ASPR/OPP) [mailto:Maria.Marinissen@hhs.gov]

Sent: Friday, March 25, 2011 8:56 AM

To: (b)(6)

(b)(6)

Cc: Robinson, Robin (HHS/ASPR/BARDA); Burel, Greg (CDC/OPHPR/DSNS); Adams, Steven A. (CDC/OPHPR/DSNS); Hrdina, Chad (HHS/ASPR/OPP); Kaplowitz, Lisa (HHS/ASPR/OPP)

Subject: Invitation from HHS to discuss potential acquisition of KI

Importance: High

USG colleagues,

Good morning. Would you be available this morning to have a short conference call with HHS about POTENTIAL acquisition of KI in the near term? Based on the current situation in Japan and in anticipation of potential future needs in the US, we would like to discuss this issue with our USG partners to coordinate to the extent possible.

Please let me know if you and/or appropriate representatives from your agencies are available today at 11:30 am. I will send a calendar invitation and would appreciate if you can RSVP.

Thanks in advance,

Maria Julia Marinissen, Ph.D.

Director

Division of International Health Security

Office of Policy and Planning

Office of the Assistant Secretary for Preparedness and Response

U.S. Department of Health and Human Services

200 Independence Ave. S.W., Room 638G-Office #43

Washington, DC 20201

Tel: (202) 205 4214 (w); (b)(6)

(bb)

E-mail: Maria.Marinissen@hhs.gov

ca/148

From: Milligan, Patricia
Sent: Thursday, March 24, 2011 11:43 AM
To: Hoc, PMT12
Subject: evacuations
Attachments: Japan evacuation.doc

CA/149

CANADIAN NUCLEAR SAFETY COMMISSION (CNSC): March 17, 2011 19:08 EDT:
"Given the evolving situation, Canadians located within 80 km of the Fukushima Nuclear Power Plant should consider, as a further precautionary measure, evacuating this area. The directions of the Japanese government and local emergency response personnel should also be followed by all Canadians in Japan."

CANADA FOREIGN AFFAIRS AND INTERNATIONAL TRADE: 23 March, 2011
"Following damage to the Fukushima nuclear power station in Okumacho, Canadians are strongly advised to follow the advice issued by the Japanese authorities. An evacuation order is in effect for the zone within 20 km of the Fukushima Nuclear Power Plant. Japanese authorities recommend that people between 20 km and 30 km from the plant remain indoors with windows and doors closed and refrain from using ventilation systems. Given the evolving situation, Canadians located within 80 km of the plant are advised that they should, as a further precautionary measure, evacuate this area. The directions of the Japanese government and local emergency response personnel should also be followed by all Canadians in Japan. "

Kyodo News: March 18, Kyodo

<http://english.kyodonews.jp/news/2011/03/79157.html>

"S. Korea to mobilize military planes to evacuate nationals from Japan"

On Thursday, South Korea upgraded a safety advisory telling its citizens in Japan to stay at least 80 kilometers away from the crippled nuclear reactors in Fukushima Prefecture, more than doubling the previous evacuation distance of 30 km amid rising fears of exposure to radiation.

Australian Business Traveller: 18 March 2011

<http://www.ausbtt.com.au/australian-government-to-japan-travellers-leave-now-tokyo-unsafe>

ARPANSA [the Australian Radiation Protection and Nuclear Safety Agency] recommended that Australians within 80 kilometres of the Fukushima Nuclear Power Plant move out of the area as a precautionary measure.

Travel Weekly: Mar 17, 2011 07:43

"Nuclear fears in Japan prompt FCO warning"

<http://www.travelweekly.co.uk/Articles/2011/03/17/36516/nuclear-fears-in-japan-prompt-fco-warning.html>

The Government is chartering aircraft to evacuate Britons from Japan to Hong Kong as concerns heighten over fallout from the stricken Fukushima nuclear plant.

The Foreign and Commonwealth Office updated its travel advice today, saying: "Due to the evolving situation at the Fukushima nuclear facility and potential disruptions to the supply of goods, transport, communications, power and other infrastructure, British nationals currently in Tokyo and to the north of Tokyo should consider leaving the area.

"The UK government is chartering flights from Tokyo to Hong Kong to supplement commercially available options for those wishing to leave Japan."

Britons were urged to remain outside an 80km radius of the nuclear plant "as an additional precautionary measure," saying the call was in line with the US government's advice to its citizens in Japan.

"If you are currently between 30km and 80km from the facility, we advise you to leave the area or take shelter indoors if you are unable to travel," the FCO said. Britons seeking to leave Japan were advised to use commercial flights as their first option or register interest in the charter option to Hong Kong.

BBC report: 18 march 2011

<http://www.bbc.co.uk/news/world-asia-pacific-12775329>

"Foreign evacuations"

- US - providing flights for people who wish to leave, advising 50-mile exclusion zone around Fukushima
- France - urging people to leave northern Japan and Tokyo, sending government planes to fly French out
- UK - advising nationals to leave north-east and Tokyo, chartering flights out
- China - bringing thousands to Niigata for evacuation
- Australia - people with non-essential roles to leave Japan

China says it has evacuated more than 6,000 of its nationals from quake-hit areas, mostly to Niigata on Japan's west coast, and is laying on six to eight additional flights to bring them home.

South Korea has said it will mobilise military ships and aircraft to evacuate its citizens if the situation worsens. At the moment it has told its nationals to stay 50 miles away from the plant.

Most other countries have also advised their nationals to evacuate from the north-eastern region of Japan or to leave the country altogether if they can.

Financial Times report Published: March 17 2011 17:14

"Foreign governments step up evacuations"

<http://www.ft.com/cms/s/0/592cdc28-50b1-11e0-9227-00144feab49a.html#axzz1HRMbjqdg>

In the clearest sign yet that foreign governments are losing confidence in the Japanese government's ability to contain radioactivity from the crippled reactors, embassies including Australia, China, South Korea and Thailand upgraded their warnings to nationals in Japan.

The US and UK governments on Thursday said they were arranging charter flights for their nationals to leave Japan. The UK and Australia also expanded the evacuation zone to 80km in line with advice from the US to its nationals.

World News Company report: March 17 2011

<http://www.worldnewsco.com/4528/residents-radius-80-km-fukushima-nuclear-power-plant/>

The government of United States called on their citizens within a radius of 80 kilometers from the Fukushima nuclear power plant to leave the area. U.S. warning shows the evacuation radius which is wider than the evacuation order issued by Japanese government.

The Japanese government had previously urged people living within a radius of 20 kilometers from the Fukushima nuclear power plant to flee to other places.

The Japanese government also urged people residing within a radius of 32 kilometers from the Fukushima nuclear power plant to not leave the house if they can not leave the area.

While the British Foreign Office said, English people should now consider to go from Tokyo and the northeast region of Japan.

"Concerning the situation in the Fukushima nuclear facilities, the last suggestion of The UK Government Chief Scientific Adviser (GCSA) is for those who are outside the exclusion zone established by the Japanese authorities; no real problems to worry about the health of human society. This advice is kept under review constantly," the statement of British Foreign Office.

"However, due to the situation that developed at the Fukushima nuclear facilities and potential disruptions to supply of goods, transportation, communications, electricity and other infrastructure, British citizens who currently resides in Tokyo and the north of Tokyo to consider leaving the area," thus, the official statement of British Foreign Office as reported by the Daily Telegraph on Thursday (March 17, 2011).

The Swiss government also urged its citizens to leave Tokyo and northeastern Japan. Previously, the Australian government had also urged its citizens residing in Tokyo, near Fukushima nuclear power plant and other areas affected by earthquake and tsunami to go to

evacuate. The call of evacuation of residents also issued by the governments of South Korea and France.

International Business Time: March 17, 2011 9:45 PM AEST

<http://au.ibtimes.com/articles/123822/20110318/uk-japan.htm>

As foreigners in Japan become increasingly desperate to flee the country, the British government has chartered planes to fly Britons in the country from Tokyo to Hong Kong.

"The UK government is chartering flights from Tokyo to Hong Kong to supplement commercially available options for those wishing to leave Japan," said a spokesman for the Foreign Office.

"Due to the evolving situation at the Fukushima nuclear facility and potential disruptions to the supply of goods, transport, communications, power and other infrastructure, British nationals in Tokyo and to the north of Tokyo should consider leaving the area," a UK government spokesman stated.

Britain follows other nations, including France, Turkey and China, which have already advised its nations to leave Japan

From: Boyd.Mike@epamail.epa.gov
Sent: Wednesday, March 23, 2011 9:13 PM
To: Edward.LAZO@oecd.org
Cc: acortes@cnsns.gob.mx; adriana.sokolikova@ujd.gov.sk; alexandra.brasat@amb-roumanie.fr; alexandru.rodna@cncan.ro; ali.ghovanlou@hq.doe.gov; amcgarry@rpil.ie; andre.jouve@ec.europa.eu; ann.heinrich@nnsa.doe.gov; antonis@eeae.nrcps.ariadne-t.gr; apanfilov@uyrb.faae.ru; augustin.janssens@ec.europa.eu; axel.boettger@bmu.bund.de; barbara.vokal-nemec@gov.si; benjamin.stanford@oecd.org; bob.powell@hse.gsi.gov.uk; brian.ahier@hc-sc.gc.ca; bruno.cessac@irs.n.fr; carlos.sancho@ciemat.es; caroline.purvis@cncs-ccsn.gc.ca; carrz@who.int; carvalho@itn.pt; christian.vandecasteele@fanc.fgov.be; ciska.zuur@minvrom.nl; ck@nuke.hacettepe.edu.tr; clindvall@hotmail.com; clive.williams@environment-agency.gov.uk; cmcmahon@rpil.ie; dana.drabova@sujb.cz; david.cancio@ciemat.es; david.duchesne@hc-sc.gc.ca; david.tredinnick@arpansa.gov.au; delphine.caamano@asn.fr; delphine.xicluna@asn.fr; dominique.rauber@babs.admin.ch; duranova@vuje.sk; d.h.byron@iaea.org; eduard.metke@ujd.gov.sk; edward.lazo@oecd.org; e.amaral@iaea.org; fgering@bfs.de; finn.ugletveit@nrpa.no; florence.gallay@asn.fr; florence.menetrier@cea.fr; fukumoto.masahiro@jaea.go.jp; f.baciu@iaea.org; gunnar.saxebol@nrpa.no; halilburcin.okyar@oecd.org; hannele.aaltonen@stuk.fi; hans.riotte@oecd.org; hefin.griffiths@ansto.gov.au; helmut.fischer@lebensministerium.at; hiroito@mext.go.jp; hkataoka@mext.go.jp; hoe@brs.dk; hschoi@kins.re.kr; ian.robinson@hse.gsi.gov.uk; iharikan@taek.gov.tr; ikumi.moriguchi@oecd.org; ingemar.lund@ssm.se; isabelle.mehla-auge@asn.fr; jean-francois.lecomte@irs.n.fr; jean-luc.godet@asn.fr; jerzy.mietelski@ifj.edu.pl; jette.bijlholt@minvrom.nl; jill.meara@hpa.org.uk; jim.scott@arpansa.gov.au; jldelgado@cnsns.gob.mx; jmmc@csn.es; joerg.brauns@areva.com; johannes.hammer@ensi.ch; johannes.kuhlen@bmu.bund.de; jose.gutierrez@ciemat.es; jpgc@csn.es; j.p.auclair@hc-sc.gc.ca; kaare.ulbak@sis.dk; kanamori.masashi@jaea.go.jp; karla.petrova@sujb.cz; kazsakai@nirs.go.jp; keith.binfield@defra.gsi.gov.uk; kevin.bundy@cncs-ccsn.gc.ca; kevin.jackson@ec.europa.eu; khour@eeae.gr; kmiyamo@mext.go.jp; kobayashi.hirohide@jaea.go.jp; koblinger@haea.gov.hu; krajewski@clor.waw.pl; kristiina.korhonen@oecd.org; krzysztof.dabrowski@paa.gov.pl; kr.kase@stanfordalumni.org; ksmith@rpil.ie; luciano.bologna@apat.it; lynn.hubbard@ssm.se; macsuga@haea.gov.hu; maekawa-yukinori@meti.go.jp; malcolm.c@epamail.epa.gov; masa.takahashi@cao.go.jp; mike.griffiths@rimnet.gsi.gov.uk; miroslav.pinak@oecd.org; mrm@csn.es; nakata@nustec.or.jp; nina.cernohlawek@ages.at; niu@ilo.org; ogoshi-harushige@meti.go.jp; okuno.hiroshi@jaea.go.jp; olivier.isnard@irs.n.fr; olli.vilkamo@stuk.fi; paolo.zepa@isprambiente.it; Milligan, Patricia; patrick.breuskin@ms.etat.lu; patrick.smeesters@fanc.fgov.be; pcam@enresa.es; pedrovaz@itn.pt; perez@who.int; peter.hofer@lebensministerium.at; peter.hughes@hse.gsi.gov.uk; peter.johnston@arpansa.gov.au; p.hedemann@dekom.dk; rafal.frac@oecd-poland.org; rick@unscear.org; ronald.rusch@ensi.ch; rvr@csn.es; r.martincic@iaea.org; saigusa@nirs.go.jp; saito-minoru@jnes.go.jp; salvatore.frullani@iss.infn.it; sandra.little@hse.gsi.gov.uk; sandro.sandri@enea.it; DeCair.Sara@epamail.epa.gov; schneider@cepn.asso.fr; sci.sec@icrp.org; sep@gr.is; shandala@srcibph.ru; shannounf@who.int; shizuyo.kusumi@cao.go.jp; sisko.salomaa@stuk.fi; smm@gr.is; Bush-Goddard, Stephanie; stephen.solomon@arpansa.gov.au; stig.husin@ssm.se;

CA/150

Cc: stuart.prosser@arpansa.gov.au; suzuki51@mext.go.jp; sychang@kaeri.re.kr; tomoho.yamada@cao.go.jp; toshihiko.kamada@mofa.go.jp; uichiro.yoshimura@oecd.org; vera.starostova@sujb.cz; vesa.tanner@ec.europa.eu; vince.mcclelland@nnsa.doe.gov; vladimir.jurina@uvzsr.sk; werner.zeller@bag.admin.ch; wim.molhoek@minvrom.nl; wweiss@bfs.de; yamamoto.kazuya@jaea.go.jp; ysumika@mext.go.jp; yuinoue@mext.go.jp

Subject: Re: Governmental Decision Database: Screening Recommendations

Ted,

Here is a link to an FDA alert I just received re. food imports:
http://www.accessdata.fda.gov/cms_ia/importalert_621.html We are working on some advice for our Customs officers re. packages arriving from Japan. I hope to have that available tomorrow. Thanks.

Mike Boyd

From: <Edward.LAZO@oecd.org>
To: amcgarry@rpii.ie, patrick.smeesters@fanc.fgov.be, kaare.ulbak@sis.dk, edward.lazo@oecd.org, schneider@cepn.asso.fr, jean-francois.lecomte@irsn.fr, ck@nuke.hacettepe.edu.tr, suzuki51@mext.go.jp, shandala@srcibph.ru, apanfilov@uyrb.faae.ru, toshihiko.kamada@mofa.go.jp, perez@who.int, masa.takahashi@cao.go.jp, patricia.milligan@nrc.gov, bruno.cessac@irsn.fr, david.duchesne@hc-sc.gc.ca, david.tredinnick@arpansa.gov.au, p.hedemann@dekom.dk, david.cancio@ciemat.es, jose.gutierrez@ciemat.es, tomoho.yamada@cao.go.jp, ian.robinson@hse.gsi.gov.uk, johannes.hammer@ensi.ch, Mike Boyd/DC/USEPA/US@EPA, carvalho@itn.pt, wweiss@bfs.de, shizuyo.kusumi@cao.go.jp, ali.ghovanlou@hq.doe.gov, kazsakai@nirs.go.jp, saito-minoru@jnes.go.jp, andre.jouve@ec.europa.eu, wim.molhoek@minvrom.nl, antonis@eeae.nrcps.ariadne-t.gr, r.martincic@iaea.org, j.p.auclair@hc-sc.gc.ca, jerzy.mietelski@ifj.edu.pl, olivier.isnard@irsn.fr, brian.ahier@hc-sc.gc.ca, koblinger@haea.gov.hu, clindvall@hotmail.com, rafal.frac@oecd-poland.org, kobayashi.hirohide@jaea.go.jp, clive.williams@environment-agency.gov.uk, carrz@who.int, jldelgado@cnsns.gob.mx, caroline.purvis@cnsccsn.gc.ca, sci.sec@icrp.org, ikumi.moriguchi@oecd.org, eduard.metke@ujd.gov.sk, jpgc@csn.es, keith.binfield@defra.gsi.gov.uk, delphine.xicluna@asn.fr, ronald.rusch@ensi.ch, werner.zeller@bag.admin.ch, pcam@enresa.es, karla.petrova@sujb.cz, dominique.rauber@babs.admin.ch, saigusa@nirs.go.jp, jim.scott@arpansa.gov.au, kr.kase@stanfordalumni.org, yuinoue@mext.go.jp, okuno.hiroshi@jaea.go.jp, kanamori.masashi@jaea.go.jp, patrick.breuskin@ms.etat.lu,

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jette.bijlholt@minvrom.nl, kmiyamo@mext.go.jp

Date: 03/23/2011 10:29 AM

Subject:Governmental Decision Database: Screening Recommendations

Dear Colleagues,

There has been quite a lot of interest in people and goods arriving from Japan, by air or by boat, in particular with respect to any radiological screening that is being recommended at ports of entry (air travel or maritime). As such, could you please respond to the following questions, which will be posted, along with the other decision information from you, on the ENAC web site. Note that the following question is SOMEWHAT redundant with Q2 and Q3 which have already been asked. As such, I have extracted these questions and answers from the existing database and included them here to facilitate any updating you may need to make. If there is no change please feel free to ignore this request.

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 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?

Sincerely,

Ted Lazo[attachment "Results Compilation Emergency Response Governmental Decision and Recommendation Port of Entry Questions.doc" deleted by Mike Boyd/DC/USEPA/US]

From: Milligan, Patricia
Sent: Wednesday, March 23, 2011 8:33 PM
To: McDermott, Brian
Subject: Fw: PAG assistance

Maybe they should use cercla?
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: LIA01 Hoc
To: Milligan, Patricia
Sent: Wed Mar 23 20:20:38 2011
Subject: PAG assistance

Trish

We are looking for the "official" US PAGs for recovery/reentry after evacuation

Japan ad our NRC forward team is looking to determine what rad levels are OK to return the evacuated public

I looked for examples we use in the Ingestion Pathway exercises using the FRMAC fly over and ground readings

I cant find this on the DOE or EPA websites

Thanks

Ned
NRC Federal Liaison

CA/151

From: Milligan, Patricia
Sent: Wednesday, March 23, 2011 1:50 PM
To: Meighan, Sean
Subject: RE: public Q&As associated with the Japan events, EPZ Q&A - Why 50mi Japan only 10mi USA?

Thanks. Since we (NSIR/DPR) cannot approve this question and answer as it stands.

From: Meighan, Sean
Sent: Wednesday, March 23, 2011 1:47 PM
To: Milligan, Patricia
Cc: Shoop, Undine
Subject: RE: public Q&As associated with the Japan events, EPZ Q&A - Why 50mi Japan only 10mi USA?

I understand you would like contact on this question.

Very Respectfully
Sean

From: Milligan, Patricia
Sent: Wednesday, March 23, 2011 1:47 PM
To: Meighan, Sean
Subject: RE: public Q&As associated with the Japan events, EPZ Q&A - Why 50mi Japan only 10mi USA?

Please have them contact me on this question.

From: Meighan, Sean
Sent: Wednesday, March 23, 2011 1:44 PM
To: Milligan, Patricia
Cc: Shoop, Undine
Subject: RE: public Q&As associated with the Japan events, EPZ Q&A - Why 50mi Japan only 10mi USA?

Good Afternoon Patricia:

I understand your response, and will defer to NRR Health Physics & Human Perf Branch on this question.

Very Respectfully
Sean

From: Milligan, Patricia
Sent: Wednesday, March 23, 2011 1:38 PM
To: Meighan, Sean
Subject: RE: public Q&As associated with the Japan events, EPZ Q&A - Why 50mi Japan only 10mi USA?
Importance: High

No we are not ok with that replacement as it doesn't say anything. What are you trying to accomplish with this??

From: Meighan, Sean
Sent: Wednesday, March 23, 2011 8:25 AM

CA/152

To: Milligan, Patricia

Subject: public Q&As associated with the Japan events, EPZ Q&A - Why 50mi Japan only 10mi USA?

Good Morning Patricia:

I am working with Nelson on the public Q&As associated with the Japan events. Nelson suggested I contact you for your opinion on a revision to a question/answer.

On the question

EPZ Q&A - Why 50mi Japan only 10mi USA?

We currently have the below Q&A

Q. Why did the NRC recommend evacuation out to 50 miles for American citizens in Japan when they would only recommend a 10 mile evacuation in the United States?

A: There are two emergency planning zones, a 10 mile EPZ for plume exposure and a 50 mile EPZ for food exposure. The 10 mile emergency planning zone is the area that was established as a basis for planning because the projected doses from most accident sequences would not exceed the Environmental Protection Agency protective action dose guidelines (1-5 rem) at 10 miles. However the 10 mile EPZ was always considered a basis for emergency planning that could be expanded if the situation warranted. The situation in Japan, with four reactors experiencing exceptional difficulties simultaneously, led to the decision to expand the evacuation beyond the 10 mile radius.

I was pointed to the below OPA public release which may be a more complete answer to the above question. **Would you be OK with a replacement of the above answer with the below answer?**

Very Respectfully
Sean Meighan
(Acting) NRR TA

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

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

Among other things, in the United States protective actions recommendations are implemented when projected doses could exceed 1 rem to the body or 5 rem to the thyroid. A rem is a measure of radiation dose. The average American is exposed to approximately 620 millirems, or 0.62 rem, of radiation each year from natural and manmade sources. In making protective action recommendations, the NRC takes into account a variety of factors that include weather, wind direction and speed, and the status of the problem at the reactors.

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

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From: Milligan, Patricia
Sent: Wednesday, March 23, 2011 11:12 AM
To: Jones, Cynthia
Subject: RE: Commission Briefing on Japanese Events

Too much stuff going on.

From: Jones, Cynthia
Sent: Wednesday, March 23, 2011 11:02 AM
To: Elkins, Scott; Milligan, Patricia
Subject: RE: Commission Briefing on Japanese Events

We are both on travel that week- I understand that Michelle Evans (NSIR Dep Office Director) is in discussion with RES on this- It may need to be delayed a few weeks....

From: Elkins, Scott
Sent: Tuesday, March 22, 2011 1:51 PM
To: Milligan, Patricia; Jones, Cynthia
Subject: Commission Briefing on Japanese Events

Cindy/Trish,

RES has the lead for a Commission briefing (tentative date 4-14) to provide a current status of the Fukushima plants and the radiological aspects of the event. I have the lead for RES for the briefing. Both of you were suggested as potential speakers (please see attached e-mail). I would like to speak with each of you when possible (301-251-7544) about the briefing as well as ask for your recommendations for the external panel. We will be looking for presenters from DOE, EPA, FDA and NR (or DOD) to compose the external panel. Please call me when you have a few minutes.

Scott Elkins
301-251-7544
Chief, RES/DSA/RSAB
Acting DSA Dep. Director

CA/153

From: Milligan, Patricia
Sent: Wednesday, March 23, 2011 10:54 AM
To: Jones, Cynthia; Evans, Michele; McDermott, Brian
Cc: Wiggins, Jim; Morris, Scott; Miller, Chris; Chowdhury, Prosanta
Subject: RE: NEW Commission Meeting on Japanese Events - correction
Attachments: Commission Briefing on Japanese Events; image001.jpg

I think this is the meeting he was talking about? It is scheduled for the 14th according to EDO's office

From: Jones, Cynthia
Sent: Wednesday, March 23, 2011 10:45 AM
To: Milligan, Patricia; Evans, Michele; McDermott, Brian
Cc: Wiggins, Jim; Morris, Scott; Miller, Chris; Chowdhury, Prosanta
Subject: RE: NEW Commission Meeting on Japanese Events - correction

Correction-

The mtg I previus sent the email on was a mtg in FL – check with Prosanta. I am NOT aware of a Comm mtg.....

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 4:57 PM
To: Evans, Michele; Jones, Cynthia; McDermott, Brian
Cc: Wiggins, Jim; Morris, Scott; Miller, Chris
Subject: Re: NEW Commission Meeting on Japanese Events

I talked with scott elkins to tell him that I was unavail that week. I have no idea how this came up but scott indicated that it was envisioned to be a discussion abiut rad assessment and ep and health effects. I suggested he call my boss.

Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Evans, Michele
To: Milligan, Patricia; Jones, Cynthia; McDermott, Brian
Cc: Wiggins, Jim; Morris, Scott; Miller, Chris
Sent: Tue Mar 22 16:51:02 2011
Subject: FW: NEW Commission Meeting on Japanese Events

Trish and Cyndi,

I just got off the phone with Kathy Gibson regarding the email below. Sounds like RES developed a scheduling note for a 4/14/11 Commission Meeting, "Japanese Earthquake Status – Focus on Health Effects of Radiation" possibly without any input from us? They've identified the two of you to sit at the table. Maybe one of you provided input, but Kathy did not think so.

As soon as I get the draft scheduling note, I will forward it to you. And I will try to get them to hold off on sending it to SECY, until I've confirmed that NSIR has seen and agrees with it.

Thanks

CA/154

Michele

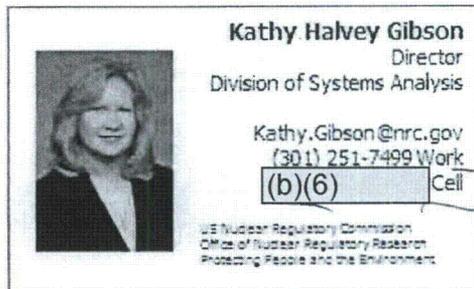
From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 12:12 PM
To: Evans, Michele
Cc: Elkins, Scott; Shaffer, Vered
Subject: FW: Commission Meeting on Japanese Events
Importance: High

Michele,
RES has been assigned the lead for an upcoming Commission meeting (April 14) as discussed below. This will take coordination between us and your staff in describing the tools and processes in the operations center for assessing radiological consequences and impact. Greg Bowman suggested that we use your TA as the POC for developing the scheduling note, briefing slides and notes, and determining speakers for the meeting.

Would you like us to work through Mike or someone else (e.g. DPR BCs or staff) on preparations for the Commission meeting?

Scott Elkins is our lead and POC for this effort.

Thanks,
Kathy



From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 9:45 AM
To: Gibson, Kathy; Elkins, Scott
Subject: RE: Commission Meeting on Japanese Events

I think you can just use the office TAs as the POCs for now:

NRR: Sean Meighan and Quynh Nguyen
FSME: George Deegan
NSIR: Mike Dudek
NRO: Donna Williams

Allen Howe, one of the DORL deputy directors in NRR, led the coordination of yesterday's Commission meeting. If I get any better contact names from the other EDO TAs, I'll pass them along.

Are you going to be able to get me an updated draft scheduling note today? If you need any help with that, please let me know.

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 8:35 AM

To: Sheron, Brian; Elkins, Scott; Bowman, Gregory
Cc: Uhle, Jennifer
Subject: Re: Commission Meeting on Japanese Events

Ok - do we know who is doing the briefing? Will it be EDO - just trying to determine level of detail.

Also, Greg, please pass on contacts in other offices if and as you get them. Thanks!

From: Sheron, Brian
To: Gibson, Kathy; Elkins, Scott
Cc: Uhle, Jennifer
Sent: Tue Mar 22 08:19:55 2011
Subject: FW: Commission Meeting on Japanese Events

See below, you got it.

From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 8:17 AM
To: Sheron, Brian
Subject: RE: Commission Meeting on Japanese Events

It's on the schedule, and if you don't object to taking the lead, you've got it (for what it's worth, I saw an e-mail from Mike over the weekend indicating that he thought it belonged with RES, with coordination from the other offices).

From: Sheron, Brian
Sent: Tuesday, March 22, 2011 8:11 AM
To: Bowman, Gregory
Subject: FW: Commission Meeting on Japanese Events

Greg, see below. I need to know ASAP if this is a go and that RES has the lead.

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 8:07 AM
To: Sheron, Brian; Uhle, Jennifer; Scott, Michael; Bush-Goddard, Stephanie
Cc: Elkins, Scott
Subject: Re: Commission Meeting on Japanese Events

Yes we should lead (with NSIR/Ops Center support) and we can be ready. As soon as you tell me to launch, I will put a team together to work it.

From: Sheron, Brian
To: Uhle, Jennifer; Gibson, Kathy; Scott, Michael; Bush-Goddard, Stephanie
Sent: Tue Mar 22 07:56:32 2011
Subject: FW: Commission Meeting on Japanese Events

See below. Can we be ready to do this by 4/14? Should we be the lead?

From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 7:51 AM
To: Sheron, Brian; Uhle, Jennifer; Gibson, Kathy; Scott, Michael
Cc: Bush-Goddard, Stephanie; Rini, Brett; Dion, Jeanne; Armstrong, Kenneth
Subject: Commission Meeting on Japanese Events
Importance: High

I just learned that we're working towards scheduling a near-term meeting on the events in Japan, with a focus on radiological consequences and potential health effects. The current thinking is that RES would have the lead for this meeting, which will most likely take place on April 14.

The meeting would involve discussion of (1) status of the event (maybe led by NRR), (2) radiological impacts, and (3) radiological significance. The external panel might involve other Federal agencies (e.g., EPA, DOE), HPS, industry, and/or a representative from one of the labs, although it could end up being a challenge to get participation given the timeframe. We would just need to give SECY suggestions and let them take care of the invitations.

Alan Frazier put together the attached draft scheduling note, but it will need to be revised. My understanding is the SECY will likely need a revised scheduling note back today to get to the Commission. Please let me know as soon as you can if you think the lead for this meeting should be assigned to a different office (if that's the case, we'll need to circle back with Mike).

Greg

From: Frazier, Alan
Sent: Monday, March 21, 2011 4:47 PM
To: Bowman, Gregory
Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Merzke, Daniel
Subject: RE: ACTION: Draft Scheduling Note for New Commission Meeting

Greg,

FSME tells me that last week RES agreed to take the lead in any discussion of rad consequences or health effects if those topics had come up during today's Commission meeting. The Commission would now like to have a Commission meeting in April focused on rad consequences and health effects.

Could you please confirm with RES tomorrow that they should have the lead for the April Commission meeting? Note that it was Jeanne Dion that agreed RES should have the lead last week (see attached email) but I am not aware of any front office interaction on this.

Alan

From: Deegan, George
Sent: Monday, March 21, 2011 4:29 PM
To: Frazier, Alan
Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Weber, Michael; Miller, Charles; Moore, Scott; Merzke, Daniel
Subject: RE: ACTION: Draft Scheduling Note for New Commission Meeting

Alan- Thanks for forwarding Jim Andersen's email.

When Allen Howe's Working Group was assembled last week to construct an outline for today's Commission briefing, the rad consequences/health effects issue was identified as originally marked as an FSME potential topic, but we later determined that RES would be better to take lead (with SOARCA etc.). I'd think they'd be the best ones to lead any new Commission briefing in April on this topic. I'll forward you that email chain separately.

From: Frazier, Alan
Sent: Monday, March 21, 2011 3:42 PM
To: Deegan, George

Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Weber, Michael; Miller, Charles; Moore, Scott; Merzke, Daniel
Subject: ACTION: Draft Scheduling Note for New Commission Meeting

George,

Please take a look at Jim's note below from today's agenda planning meeting which was held immediately after the Commission meeting.

Note in particular the highlighted **new Commission meeting in April on the Japan event with additional focus on radiological consequence / health effects** (probably around 4/14). FSME will have the lead for this new Commission meeting. Additionally, I got some feedback from Jim that you should consider having the following elements in the scheduling note.

- Status of event
- Radiological Impacts
- Radiological significance
- External panel

ACTION: In cooperation with NRR and NSIR (and any other offices you feel should be involved) please take the lead for developing a scheduling note. I have attached a initial draft to help get you started.

I do not know when this action will be due but I wanted to give you a head-start. We are still waiting for SECY's official summary of the meeting, which usually contains due dates for the draft scheduling notes.

Please let me know if you have any questions.

Regards,

Alan L. Frazier
Executive Technical Assistant
Office of the Executive Director for Operations
U.S. Nuclear Regulatory Commission
301-415-1763

From: Andersen, James
Sent: Monday, March 21, 2011 1:35 PM
To: EDO_TBPM Distribution
Cc: Muessele, Mary; Weber, Michael; Virgilio, Martin; Ash, Darren; Landau, Mindy
Subject: Agenda Planning Meeting

ETAs,

The Commission held an Agenda Planning Meeting this morning. SECY will provide the formal summary, but I wanted to let you know a couple things as quickly as possible:

- The 10CFR50.46(a) Commission meeting was postponed to a later unspecified date, the Commission will continue to review the paper (Bill Ruland was informed)
- The SMR Commission meeting on 3/29 is still on (Mike Mayfield was informed)
- The Source Security Commission meeting on 4/19 is still on (Josie Piccone was informed)

- The ITAAC Commission meeting was postponed to a later unspecified date, the Commission will continue to review the paper (Mike Mayfield was informed)
- The EEO/Human Capital Commission meeting was moved to June 2 (**Kris – please advise HR and SBCR**)
- The Cumulative Effectives of Regulation Commission meeting was postponed to a later unspecified date (Tom Blount was informed)
- The AARM Commission meeting on 5/27 is still on (**Brian please advise NRR**)
- The Emergency Planning Final Rule Commission meeting was moved up to May 12 (left Bob Kahler a message)
- The ACRS meeting on 6/6 is still on
- The International Commission meeting was postponed to a later unspecified date

Several new meetings were added:

- 30, 60, and 90 day status meetings regarding the Near-Term NRC Review Effort (task group?); probably around 5/3, 6/16, 7/18 (**Jim A lead for scheduling note**)
- Status meeting on the Japanese event with additional focus on radiological consequence / health effects; probably around 4/14 (**Brian lead for scheduling note**)
- Status meeting on the Japanese event with additional focus on station blackout; probably around 4/28 (**Brian lead for scheduling note**)
- Stakeholder meeting on the staff's 90 day status report; probably around 7/25 (**Jim A lead for scheduling note**)

From: Hepburn, Matthew (b)(6)
Sent: Wednesday, March 23, 2011 7:38 AM
To: Adela.ramos@osec.usda.gov; 'Alexander.Garza@dhs.gov'; Anne.MacMillian@osec.usda.gov; Bar-Shalom, Tali; Beck, Nancy; Bhowmik, Rachana; Block, Michael R.; Boots, Michael J.; 'Bradley.dickerson@hq.dhs.gov'; 'Brinsfield, Kathryn'; Buffa, Nikki; Cashin, Charles L.; Cetron, Marty (CDC/OID/NCEZID); Coleman, CNorman (HHS/ASPR/OPEO); Deborah.Wilber@nnsa.doe.gov; dietrich.debbie@epamail.epa.gov; Dolan, Edward M.; Fisher, Timothy W LTC OSD ATL; Fitzpatrick, Michael A.; 'Gentilman, Mark, CIV, OASD(HA)/TMA'; George Christopher; Hrdina, Chad (HHS/ASPR/OPP); Idar, Deanne J CIV OSD POLICY; 'John.Taylor2@fda.hhs.gov'; Kamoie, Brian E.; Kern, Dab; Kevin Russell; Kevin.Hanretta@va.gov; Khan, Ali S. (CDC/OPHPR/OD); Kim, Paul; Laura.J.Valero@faa.gov; Lisa Kaplowitz (lisa.kaplowitz@hhs.gov); Love, Richard A CIV OSD POLICY; Ludwig, Sharon L CAPT MIL USA MEDCOM AFHSC; Lurie, Nicole (HHS/ASPR/IO); lynn.slepski@dot.gov; MacKinney, John A; Maddux, Sheryl -USDA; Malanoski, Margaret A.; 'Marinissen, Maria Julia (HHS/ASPR/OMSPH)'; MCALEENAN, KEVIN K.; Mecher, Carter E.; Mhamburg1@fda.hhs.gov; 'Michael.Butel@ha.osd.mil'; 'mickelson@afri.usuhs.mil'; Molly Muldoon (molly.muldoon@fda.hhs.gov); monica.medina@noaa.gov; Milligan, Patricia; Prescott, Jeffrey; Reed, Richard A.; 'Richard.Hatchett@hhs.gov'; sed2@cdc.gov; Toffoli, Caroline A LTC OSD ATL; Veal.Lee@epamail.epa.gov
Subject: agenda for call today at 3 pm

Hi everyone,

There were some issues with the attachment for the call today. Here is the agenda for the call:

- | | | |
|---|--------|---------------|
| 1. Situation Update | 15 min | NSS |
| 2. Update from Japan | 10 min | HHS |
| 3. Food safety update | 10 min | FDA/USDA/NOAA |
| 4. Radiation issues with inbound passengers | 10 min | DHS/CDC |
| 5. Recap/Due Outs | 15 min | NSS |

As a reminder, phone number is:

phone: 202-395-6392, passcode (b)(6)

Matthew Hepburn, M.D.
Director, Medical Preparedness Policy
White House National Security Staff
202-456-1307 (o)

(b)(6) (f)
(b)(6)

CA/155

From: Hepburn, Matthew (b)(6)
Sent: Tuesday, March 22, 2011 8:01 PM
To: Adela.ramos@osec.usda.gov; 'Alexander.Garza@dhs.gov'; Anne.MacMillian@osec.usda.gov; Bar-Shalom, Tali; Beck, Nancy; Bhowmik, Rachana; Block, Michael R.; Boots, Michael J.; 'Bradley.dickerson@hq.dhs.gov'; 'Brinsfield, Kathryn'; Buffa, Nikki; Cashin, Charles L.; Cetron, Marty (CDC/OID/NCEZID); Coleman, CNorman (HHS/ASPR/OPEO); Deborah.Wilber@nnsa.doe.gov; dietrich.debbie@epamail.epa.gov; Dolan, Edward M.; Fisher, Timothy W LTC OSD ATL; Fitzpatrick, Michael A.; 'Gentilman, Mark, CIV, OASD(HA)/TMA'; George Christopher; Hrdina, Chad (HHS/ASPR/OPP); Idar, Deanne J CIV OSD POLICY; 'John.Taylor2@fda.hhs.gov'; Kamoie, Brian E.; Kern, Dab; Kevin Russell; Kevin.Hanretta@va.gov; Khan, Ali S. (CDC/OPHPR/OD); Kim, Paul; Laura.J.Valero@faa.gov; Lisa Kaplowitz (lisa.kaplowitz@hhs.gov); Love, Richard A CIV OSD POLICY; Ludwig, Sharon L CAPT MIL USA MEDCOM AFHSC; Lurie, Nicole (HHS/ASPR/IO); lynn.slepski@dot.gov; MacKinney, John A; Maddux, Sheryl -USDA; Malanoski, Margaret A.; 'Marinissen, Maria Julia (HHS/ASPR/OMSPH)'; MCALEENAN, KEVIN K.; Mecher, Carter E.; Mhamburg1@fda.hhs.gov; 'Michael.Butel@ha.osd.mil'; 'mickelson@afri.usuhs.mil'; Molly Muldoon (molly.muldoon@fda.hhs.gov); monica.medina@noaa.gov; Milligan, Patricia; Prescott, Jeffrey; Reed, Richard A.; 'Richard.Hatchett@hhs.gov'; sed2@cdc.gov; Toffoli, Caroline A LTC OSD ATL; Veal.Lee@epamail.epa.gov
Subject: Health Effects WG summary of discussion
Attachments: Summary of discussion Mar21 Health Effects Policy Call.docx

Hello everyone,

Attached is our summary of discussion from our conference call on Monday, March 21st. Our next call will be Wednesday, March 23rd, at 3:00 p.m. An invite and agenda will be sent shortly.

Matthew Hepburn, M.D.
Director, Medical Preparedness Policy
White House National Security Staff

202-456-1307 (o)

(b)(6) (f)

(b)(6)

CA/156

(b)(5)

(b)(5)

(b)(5)

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 1:39 PM
To: Hoc, PMT12
Subject: RE: URGENT REQUEST FOR INFORMATION FROM PMT

Ok thanks

From: Hoc, PMT12
Sent: Tuesday, March 22, 2011 1:36 PM
To: Milligan, Patricia
Subject: RE: URGENT REQUEST FOR INFORMATION FROM PMT

We are not doing the independent calculation.

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 1:32 PM
To: Hoc, PMT12
Subject: RE: URGENT REQUEST FOR INFORMATION FROM PMT

Could you send me the results when you are finished. I assume that you left Bill Maier the voice message?

From: Hoc, PMT12
Sent: Tuesday, March 22, 2011 1:29 PM
To: Milligan, Patricia
Subject: RE: URGENT REQUEST FOR INFORMATION FROM PMT

Yes. I left him a voice message.

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 1:26 PM
To: Hoc, PMT12
Subject: FW: URGENT REQUEST FOR INFORMATION FROM PMT
Importance: High

Are we working an answer for this?

From: Maier, Bill
Sent: Tuesday, March 22, 2011 12:49 PM
To: LIA04 Hoc; OST05 Hoc
Cc: Howell, Linda; agodwin@azrra.gov; 'tmorales@azrra.gov'; Howell, Art; Milligan, Patricia
Subject: URGENT REQUEST FOR INFORMATION FROM PMT
Importance: High

I just got off the phone with Aubrey Godwin, Director of the Arizona Radiation Regulatory Agency (ARRA) and Arizona State Liaison Officer to the NRC.

Mr. Godwin is planning to issue a news release following up on the attached. Mr. Godwin was aware of Palo Verde's confirmed measurement(s), so the licensee is in communication with the State about its findings.

CA/157

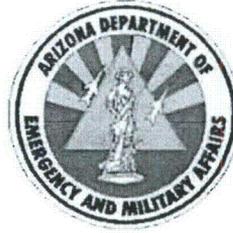
One of the items Mr. Godwin needs to include in his follow-up news release is the air concentration of iodine that would prompt the recommendation, following the present Federal guidance, for persons to ingest potassium iodide. Mr. Godwin is asking for NRC input to check the calculated value which he proposes to include in his news release. That calculated value is

1000 picoCuries per cubic meter of air, or $1000E-12$ microCuries per millileter of air

Mr. Godwin did not elaborate on what assumptions contributed to the derivation of that value, but he is asking for an independent calculation from the NRC that would confirm or deny the feasibility of the above value.

He asked that the answer to this request be expedited, if possible, because he informed me he has to issue this news release soon (a few hours).

Bill Maier
Region 4



Insignificant Amounts of Radiation Detected by State Monitoring Equipment

Levels Pose No Health Threat; Amounts Many Times Less than Background Radiation Doses

PHOENIX— Trace amounts of Iodine-131 radioactive material associated with releases from the Fukushima Daiichi Power Plant in Japan have been detected by Arizona Radiation Regulatory Agency (ARRA) instrumentation located west of the valley and in Phoenix.

“The average background radiation can range from 100-300 millirems per year, “according to Aubrey Godwin, Director of the Arizona Radiation Regulatory Agency. “The amount of additional radiation we are seeing in Arizona is less than **0.1** millirem. Such low concentrations of Iodine-131 do not pose a public health threat to Arizonans.”

ARRA expected to see a slight increase in detectable radiation as a result of the still unfolding emergency in Japan and due to the high sensitivity of monitoring equipment. The Arizona Department of Health Services (ADHS) maintains that the precautionary ingestion of potassium iodide (KI) is neither necessary nor prudent. Arizonans who take KI unnecessarily could place themselves in danger of negative side effects, including severe allergic reactions, abnormal heart rhythms and nausea.

ARRA monitors radiation levels in the state as a function of its oversight of the Radiation Measurements Laboratory. It continues to monitor levels of radiation from Japan in addition to its ongoing surveillance near Palo Verde Nuclear Generating Station west of Phoenix.

The Arizona Department of Agriculture and ARRA regularly test food produced in the state as part of the ongoing efforts to ensure a safe food supply. The sampling looks for several potential contaminants including radiation.

Readings from the ARRA Radiation Measurements Laboratory will be shared via the Arizona Emergency Information Network (AzEIN), www.azein.gov, until the detectable affects of the Japan nuclear emergency naturally dissipate.

For more information on the emergency in Japan, including answers to some frequently asked questions, visit the AzEIN website or email questions to azein@azdema.gov.

[Link to Arizona Radiation Regulatory Agency Data](#)



Counting time 6 hours.

All samples collected for 72 hours, pulled on Saturday March 19, 2011

Station #	Location	Iodine-131/pCi/M ³	Error range	Lower Limit of Detection
7	Arlington School, 1 mile east of PVNGS	0.54	+/-0.023	0.026
14	So. Of Salome Hwy w of 371 Ave	0.26	+/-0.014	0.022
15	So. of Salome Hwy, just inside Water Reclamation Facility	0.13	+/-0.014	0.026
17	So. of 351 st Street on left side	0.69	+/-0.039	0.034
21	Elliot Road, across from Mesquite Energy Plant	0.54	+/-0.023	0.026
29	Wintersburg Rd, due west unit 2	0.62	+/-0.036	0.034
35	Off 411 th Ave and Osborn, next to fire station at end of road	0.51	+/-0.022	0.022
41	So 40 St, S of Broadway, Phoenix	0.24	+/-0.017	0.026

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 1:27 PM
To: Collins, Richard
Subject: RE: On behalf of Timothy Greten, Deputy Director, FEMA THD/ FRPCC Executive Secretariat

Can't support. I am sorry

From: Collins, Richard [mailto:Richard.Collins@dhs.gov]
Sent: Tuesday, March 22, 2011 12:41 PM
To: Milligan, Patricia; Collins, Richard
Cc: Greten, Timothy
Subject: RE: On behalf of Timothy Greten, Deputy Director, FEMA THD/ FRPCC Executive Secretariat

Trish,

We are glad that you have agreed to join us for as long as your schedule will permit.

Best,

Rich Collins

FEMA HQ-CC
NPD/THD/FRPCC
1800 South Bell St., Rm. 855
Arlington, VA 20598-3025
OF (202) 212-4753 BB(202) 431-9428 FX (703) 305-0837

From: prvs=0549c2203=Patricia.Milligan@nrc.gov [mailto:prvs=0549c2203=Patricia.Milligan@nrc.gov] **On Behalf Of** Milligan, Patricia
Sent: Monday, March 21, 2011 5:31 PM
To: Collins, Richard
Subject: RE: On behalf of Timothy Greten, Deputy Director, FEMA THD/ FRPCC Executive Secretariat

NRC will call in – and we will need to excuse ourselves rather early in the meeting due to other competing priorities.

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

From: Collins, Richard [mailto:Richard.Collins@fema.gov]
Sent: Monday, March 21, 2011 10:39 AM
To: Collins, Richard; Miller, Chris
Subject: FW: On behalf of Timothy Greten, Deputy Director, FEMA THD/ FRPCC Executive Secretariat
When: Tuesday, March 22, 2011 2:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: 1800 S. Bell St. Arlington, VA (Crystal City Metro Stop) Room 522 Call-In 1-800-320-4330 PIN: (b)(6)

CA/158

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

From: Collins, Richard

Sent: Friday, March 18, 2011 12:31 PM

To: Collins, Richard; Ahlgrim, Bridget; Berkey, Johanna; Broockerd, Larry; Bruns, Ingrid; Burnside, Conrad; Collins, Richard; Colman, Steve; Crawford, Sean; Cullen, William R; Daigler, Donald; DeFelice, Anthony; DeGilio, Lou; Echavarria, Richard; Feighert, Dan; Fiore, Craig; Flowerday, Scott; Fontenot, Rebecca; Gorman, Chad; Greten, Timothy; Hammond, Lisa; Hammons, Darrell; Hasemann, Brian; Heath, Stanley; Hlavaty-LaPosa, Janet; Horton, Douglas; Howe, Michael; Kinard, Richard; King, William; Kish, James; McCabe, Ron; McCarroll, Janis; Naskrent, Gary; Owens, Tamara; Page, Christopher; Price, John; Quinn, Vanessa; Rice, John ; Robertson, Larry; Sherwood, Harry; Stevenson, Bill; Thomson, Rebecca; Tulley, Stephen; Valentine, Norm; Ward, Paul; Webb, Bill; Webster, William; 'Alan Remick'; 'Albert Mongeon'; 'Andrew Wallo'; 'Barbara Stunder'; 'Bernard Bogdan'; 'Bernice Zaidel'; Blue, Charles; 'Brad Leissa'; 'Brittan E. Hill'; 'Bruce Young'; 'Bruce.Young@va.gov'; 'Charles Miller'; 'Colleen O'Laughlin'; Conklin, Craig; 'Daniel Blumenthal'; 'Danny McClung'; 'Danny.McClung2@va.gov'; 'david.bowman@nnsa.doe.gov'; Davis, Bruce; 'dean.mccauley@gsa.gov'; 'Decair.sara@epamail.epa.gov'; 'edward.mcguire@dhs.gov'; 'Edwards.Jonathan@epamail.epa.gov'; 'Elaine_wolff@ios.doi.gov'; 'ella.mcneil@em.doe.gov'; 'george.alexander@hhs.gov'; 'Gordon.s.cleveland@aphis.usda.gov'; 'Gordon_S_Cleveland/MD/APHIS/USDA@mailmd101.aphis.usda.gov'; Gough, Wade LCDR; Greenlaw, Pamela; Haugan, Greg; 'james.ross@dtra.mil'; 'james.williams@dot.gov'; 'John.Jensen@dm.usda.gov'; 'john.mackinney@HQ.DHS.GOV'; 'Jonathan.Bratt@orise.orau.gov'; 'Katherine.wallace@va.gov'; 'Katinka.Podmaniczky@hq.doe.gov'; 'kenagyWD@state.gov'; 'kenneth.inn@nist.gov'; 'Lawrence_K_Zelvin@nss.eop.gov'; 'lee.a.nickel1@navy.mil'; 'lisa.karam@nist.gov'; 'Lodwick.jeffrey@dol.gov'; 'lukas.mcmichael@navy.mil'; Mackinney, John A; 'manuel.aponte@osd.mil'; 'marc.brooks@HQ.DHS.GOV'; 'mark.paese@Noaa.gov'; 'McMichael.Nate@epa.gov'; 'Michael.Collins2@ic.fbi.gov'; 'Michael.Noska@fda.hhs.gov'; 'michael.unterweger@nist.gov'; 'mosser.jennifer@epa.gov'; Passow, Richard; 'patricia.milligan@nrc.gov'; 'Patrick.Starke@ic.fbi.gov'; 'paul.kim@med.va.gov'; Ponikvar, Donald (CTR); 'ricardo.reyes@dtra.mil'; 'Richard_Tinker@ios.doi.gov'; 'rmcburney@crcpd.org'; 'Schumann.Jean@epamail.epa.gov'; 'Snead.Kathryn@epamail.epa.gov'; 'ssmith@crcpd.org'; 'Stephen.Domotor@eh.doe.gov'; 'steven.clay@navy.mil'; 'steven.fine@noaa.gov'; 'stewart@cdpemail.dhs.gov'; 'Tupin.Edward@epa.gov'; 'unterweger@nist.gov'; 'Veal.Lee@epamail.epa.gov'; 'Wieder.jessica@epa.gov'; 'Wieder.Jessica@epamail.epa.gov'; 'larry.hamilton@ic.fbi.gov'; Hutter, Adam; 'angela.harless@usda.gov'; 'OPS.CAT@hq.dhs.gov'; NOC SWO; 'Richard.Artz@noaa.gov'

Cc: Zaidel, Bernice; Calhoun, Nan

Subject: On behalf of Timothy Greten, Deputy Director, FEMA THD/ FRPCC Executive Secretariat

When: Tuesday, March 22, 2011 2:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: 1800 S. Bell St. Arlington, VA (Crystal City Metro Stop) Room 522 Call-In 1-800-320-4330 PIN: (b)(6)

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<<FRPCC Meeting Minutes 17Mar2011.docx>>

Good Afternoon! The next FRPCC meeting will be held on Tuesday, March 22, 2011 from 2-4pm.

Each Agency will be given the opportunity to briefly summarize what nuclear/radiological incident-related actions have been implemented and/or are in-progress. The focal point of the discussion will continue to be centered around but, not necessarily limited to:

- Activities taken because of the tsunami threat to the U.S. west coast nuclear power plants subsequent to the earthquake
- Support given to Japan to help with their nuclear power plant emergency
- Monitoring the status of the Japanese plants
- Messaging efforts discussing how the Japanese nuclear power plant emergency might affect the U.S., and what would happen if we had this situation arise here.

The intention is to quickly bring other FRPCC members up to speed on your agency's status and plans, and more importantly to seek help from or offer information to other FRPCC members. We will be focused on events of the last few days, and will defer other FRPCC business to future meetings.

Opening remarks – Don Daigler (FEMA Response), Tim Greten (FEMA Technological Hazards Division)

The agency updates are expected to proceed as follows:

DHS/FEMA/CBP/DNDO/IP

NRC

DOE/NNSA

DOD

DOS

EPA

USDA

FDA

CDC

DOT

The floor will be opened for other agencies to provide updates as applicable.

Please RSVP to Tamara Owens (tamara.owens1@dhs.gov) and Rick Collins (richard.collins@dhs.gov), or the contact name if an alternate will be attending for your agency. << File: FRPCC Meeting Minutes 17Mar2011.docx >>

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 10:12 AM
To: Leeds, Eric
Subject: RE: minor tweak to words for NY LTGov visit

Anytime...

From: Leeds, Eric
Sent: Tuesday, March 22, 2011 10:10 AM
To: Milligan, Patricia
Cc: Nelson, Robert
Subject: RE: minor tweak to words for NY LTGov visit

Improvement – thanks!

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

From: Milligan, Patricia
Sent: Tuesday, March 22, 2011 8:20 AM
To: Leeds, Eric; Nelson, Robert
Subject: minor tweak to words for NY LTGov visit

I think it is important that we address the uncertainty in the plant conditions and operator actions. I think that is as or even more important than the rad monitoring data.

There are two EPZs; a 10 mile EPZ for plume exposure and a 50 mile EPZ for food exposure. The 10 mile EPZ is the area established as a basis for planning because the projected doses from most accident sequences would not exceed the EPA protective action dose guidelines (1-5 rem) at 10 miles. However, the 10 mile EPZ was always considered to provide a substantial basis for emergency planning/response that could be expanded if the situation warranted. The situation in Japan, with three reactors and two fuel pools experiencing exceptional difficulties simultaneously, uncertainty as to plant conditions and operator actions, along with a dearth of radiological monitoring information surrounding the plant, led to the decision to expand the evacuation beyond the 10 mile radius.

GA/159

From: Collins, Richard <Richard.Collins@dhs.gov>
Sent: Monday, March 21, 2011 12:45 PM
To:

(b)(6)

Subject: EPA "RADNET" Weblink

As discussed at the FRPCC conference call last Thursday, please see the EPA weblink below for nuclear/radiological monitoring information.

<http://www.epa.gov/japan2011/index.html>

Rick Collins

FEMA HQ-CC
NPD/THD/FRPCC
1800 South Bell St., Rm. 855
Arlington, VA 20598-3025
OF (202) 212-4753 BB (b)(6) FX (703) 305-0837

CA/160

Handwritten scribbles at the top left of the page.

From: Milligan, Patricia
Sent: Monday, March 21, 2011 3:47 PM
To: Hoc, PMT12
Subject: telecon notes on health effects phone call
Attachments: health effects agenda phone call March 21 2011.docx

Next call is Wed at 3pm same bridge number and same password

Handwritten note: ca/101

**Health Effects Policy Japan Working Group
Telephone Conference
3:00 p.m. – 4:00 p.m.**

March 21, 2011

Bridge: 202-395-6392

Passcode: (b)(6)

Agenda

- | | | |
|---|--------|---------------|
| 1. Situation Update | 15 min | NSS |
| 2. Health guidance documents | 10 min | CDC |
| 3. Food safety update | 10 min | FDA/USDA/NOAA |
| 4. Radiation issues with inbound passengers | 10 min | DHS/HHS |
| 5. Recap/Due Outs | 15 min | NSS |

Notes:

(b)(5)

(b)(5)

From: Hepburn, Matthew (b)(6)
Sent: Saturday, March 19, 2011 2:37 PM
To: Adela.ramos@osec.usda.gov; 'Alexander.Garza@dhs.gov'; Anne.MacMillian@osec.usda.gov; Bar-Shalom, Tali; Beck, Nancy; Bhowmik, Rachana; Block, Michael R.; Boots, Michael J.; 'Bradley.dickerson@hq.dhs.gov'; 'Brinsfield, Kathryn'; Buffa, Nikki; Cashin, Charles L.; Coleman, CNorman (HHS/ASPR/OPEO); Deborah.Wilber@nnsa.doe.gov; dietrich.debbie@epamail.epa.gov; Dolan, Edward M.; Fitzpatrick, Michael A.; 'Gentilman, Mark, CIV, OASD(HA)/TMA'; George Christopher, Hrdina, Chad (HHS/ASPR/OPP); Idar, Deanne J CIV OSD POLICY; 'John.Taylor2@fda.hhs.gov'; Kamoie, Brian E.; Kern, Dab; Kevin Russell; Kevin.Hanretta@va.gov; Khan, Ali S. (CDC/OPHPR/OD); Kim, Paul; Laura.J.Valero@faa.dot.gov; Lisa Kaplowitz (lisa.kaplowitz@hhs.gov); Love, Richard A CIV OSD POLICY; Ludwig, Sharon L CAPT MIL USA MEDCOM AFHSC; Lurie, Nicole (HHS/ASPR/IO); lynn.slepski@dot.gov; MacKinney, John A; Maddux, Sheryl -USDA; Malanoski, Margaret A.; 'Marinissen, Maria Julia (HHS/ASPR/OMSPH)'; MCALEENAN, KEVIN K.; Mecher, Carter E.; Mhamburg1@fda.hhs.gov; (b)(6) Molly Muldoon (molly.muldoon@fda.hhs.gov); monica.medina@noaa.gov; Milligan, Patricia; Prescott, Jeffrey; Reed, Richard A.; 'Richard.Hatchett@hhs.gov'; sed2@cdc.gov; Toffoli, Caroline A LTC OSD ATL; Veal.Lee@epamail.epa.gov
Subject: Summary of Discussion Health Effects Policy Working Group March 18th
Attachments: Summary of discussion Mar18 11am Health Effects Policy Call.docx

Hello everyone,

Attached is the Summary of Discussion Health Effects Policy Working Group on March 18th. Our next phone call will be Monday, March 21st at 3:00 p.m.

Conference line: 202-395-6392

Passcode: (b)(6)

An invite and agenda will be sent shortly.

Matthew Hepburn, M.D.
Director, Medical Preparedness Policy
White House National Security Staff
202-456-1307 (o)

(b)(6) (f)
(b)(6)

CA/162

(b)(5)

(b)(5)

From: Milligan, Patricia
Sent: Saturday, March 19, 2011 11:27 AM
To: Edward.LAZO@oecd.org
Subject: RE: Contamination data

we had cesium from a navy ship 100 miles northeast of the plant shortly after the venting started (last Sunday?).. gave us a hint that this wasn't going to go very well. the navy has had some additional isotopics from their bases south of Tokyo (about 150 miles southeast of the reactors) (hint number two that this was going to make for a long tour of duty in the ops center). -;)

Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response Office of Nuclear Security and Incident Response US NRC MS T
B46M Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Edward.LAZO@oecd.org [Edward.LAZO@oecd.org]
Sent: Saturday, March 19, 2011 11:22 AM
To: Milligan, Patricia
Subject: RE: Contamination data

Patricia,

The only isotopic stuff I have seen is what I just sent. I have seen NO surface contamination data from the Japanese. I FULLY UNDERSTAND that the situation is still in the crisis phase, but it is a surprise that the automatic monitoring data is ONLY GAMMA DOSE RATE. Anyway, we'll get through this but as best we can would be better!

See you in April! I think that we should try to start to discuss lessons already at the May WPNEM meeting - and up till just a week ago I was wondering where the WPNEM would focus now that INEX 4 is almost over!

Ted

From: Milligan, Patricia [Patricia.Milligan@nrc.gov]
Sent: Saturday, March 19, 2011 4:10 PM
To: LAZO Edward, NEA/PR
Subject: RE: Contamination data

Hi Ted

(b)(5)

Patricia Milligan, CHP, RPh

CA/163

Senior Technical Advisor for Preparedness & Response Office of Nuclear Security and Incident Response US NRC MS T
B46M Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Edward.LAZO@oecd.org [Edward.LAZO@oecd.org]

Sent: Saturday, March 19, 2011 11:03 AM

To: amcgarry@rpii.ie; patrick.smeesters@fanc.fgov.be; kaare.ulbak@sis.dk; edward.lazo@oecd.org; schneider@cepn.asso.fr; jean-francois.lecomte@irsn.fr; ck@nuke.hacettepe.edu.tr; suzuki51@mext.go.jp; shandala@srcibph.ru; apanfilov@uyrb.faae.ru; toshihiko.kamada@mofa.go.jp; perez@who.int; masa.takahashi@cao.go.jp; Milligan, Patricia; bruno.cessac@irsn.fr; david.duchesne@hc-sc.gc.ca; david.tredinnick@arpansa.gov.au; p.hedemann@dekom.dk; david.cancio@ciemat.es; jose.gutierrez@ciemat.es; tomoho.yamada@cao.go.jp; ian.robinson@hse.gsi.gov.uk; johannes.hammer@ensi.ch; boyd.mike@epa.gov; carvalho@itn.pt; ww@bfs.de; shizuyo.kusumi@cao.go.jp; ali.ghovanlou@hq.doe.gov; kazsakai@nirs.go.jp; saito-minoru@jnes.go.jp; andre.jouve@ec.europa.eu; wim.molhoek@minvrom.nl; antonis@eeae.nrcps.ariadne-t.gr; r.martincic@iaea.org; j.p.auclair@hc-sc.gc.ca; jerzy.mietelski@ifj.edu.pl; olivier.isnard@irsn.fr; brian.ahier@hc-sc.gc.ca; koblinger@haea.gov.hu; clindvall@hotmail.com; rafal.frac@oecd-poland.org; kobayashi.hirohide@jaea.go.jp; clive.williams@environment-agency.gov.uk; carrz@who.int; jldelgado@cnsns.gob.mx; caroline.purvis@cncs-ccsn.gc.ca; sci.sec@icrp.org; ikumi.moriguchi@oecd.org; eduard.metke@ujd.gov.sk; jpgc@csn.es; keith.binfield@defra.gsi.gov.uk; delphine.xicluna@asn.fr; ronald.rusch@ensi.ch; werner.zeller@bag.admin.ch; pcam@enresa.es; karla.petrova@sujb.cz; dominique.rauber@babs.admin.ch; saigusa@nirs.go.jp; jim.scott@arpansa.gov.au; kr.kase@stanfordalumni.org; yuinoue@mext.go.jp; okuno.hiroshi@jaea.go.jp; kanamori.masashi@jaea.go.jp; patrick.breuskin@ms.etat.lu; duranova@vuje.sk; decair.sara@epa.gov; d.h.byron@iaea.org; adriana.sokolikova@ujd.gov.sk; yamamoto.kazuya@jaea.go.jp; f.baciu@iaea.org; delphine.caamano@asn.fr; ysumika@mext.go.jp; ciska.zuur@minvrom.nl; smm@gr.is; carlos.sancho@ciemat.es; khour@eeae.gr; ingemar.lund@ssm.se; augustin.janssens@ec.europa.eu; pedrovaz@itn.pt; ksmith@rpii.ie; jill.meara@hpa.org.uk; joerg.brauns@areva.com; ogoshi-harushige@meti.go.jp; acortes@cnsns.gob.mx; benjamin.stanford@oecd.org; malcolm.crick@unsclear.org; olli.vilkamo@stuk.fi; stuart.prosser@arpansa.gov.au; helmut.fischer@lebensministerium.at; krajewski@clor.waw.pl; peter.johnston@arpansa.gov.au; johannes.kuhlen@bmu.bund.de; vera.starostova@sujb.cz; jmmc@csn.es; peter.hughes@hse.gsi.gov.uk; mike.griffiths@rimnet.gsi.gov.uk; paolo.zeppa@isprambiente.it; lynn.hubbard@ssm.se; nina.cernohlavek@ages.at; rvr@csn.es; sandra.little@hse.gsi.gov.uk; florence.gallay@asn.fr; salvatore.frullani@iss.infn.it; sychang@kaeri.re.kr; luciano.bologna@apat.it; sandro.sandri@enea.it; dana.drabova@sujb.cz; mrm@csn.es; florence.menetrier@cea.fr; hschoi@kins.re.kr; axel.boettger@bmu.bund.de; e.amaral@iaea.org; miroslav.pinak@oecd.org; barbara.vokal-nemec@gov.si; uichiro.yoshimura@oecd.org; jean-luc.godet@asn.fr; Bush-Goddard, Stephanie; halilburcin.okyar@oecd.org; finn.ugletveit@nrpa.no; hannele.aaltonen@stuk.fi; stig.husin@ssm.se; sep@gr.is; ann.heinrich@nnsa.doe.gov; vesa.tanner@ec.europa.eu; peter.hofer@lebensministerium.at; fgering@bfs.de; maekawa-yukinori@meti.go.jp; cmcmahon@rpii.ie; christian.vandecasteele@fanc.fgov.be; nakata@nustec.or.jp; isabelle.mehl-auget@asn.fr; fukumoto.masahiro@jaea.go.jp; gunnar.saxebol@nrpa.no; kevin.bundy@cncs-ccsn.gc.ca; sisko.salomaa@stuk.fi; alexandru.rodna@cncan.ro; hans.riotte@oecd.org; iharikan@taek.gov.tr; niu@ilo.org; kristiina.korhonen@oecd.org; shannounf@who.int; hefin.griffiths@ansto.gov.au; hiroito@mext.go.jp; hkataoka@mext.go.jp; alexandra.brasat@ambroumanie.fr; macsuga@haea.gov.hu; hoe@brs.dk; vince.mcclelland@nnsa.doe.gov; stephen.solomon@arpansa.gov.au; bob.powell@hse.gsi.gov.uk; kevin.jackson@ec.europa.eu; krzysztof.dabrowski@paa.gov.pl; jette.bijlholt@minvrom.nl; kmiyamo@mext.go.jp

Subject: Contamination data

Dear Colleagues,

The following web page is the FIRST time I have seen isotopic data from the accident. This data does not seem to provide airborne concentration information, however it does provide spectroscopic information. From this standpoint, it would seem that by combining this data with the gamma dose rate information that we have, some VERY PRELIMINARY suppositions of airborne contamination MAY BE POSSIBLE.

Again, I don't know how useful the attached data will be, but I think it comes from a reputable source and as such I am forwarding it to you for your consideration.

Sincerely,
Ted

http://www.aist.go.jp/aist_e/taisaku/en/measurement/index.html

Subject: On behalf of Timothy Greten, Deputy Director, FEMA THD/ FRPCC Executive Secretariat
Location: 1800 S. Bell St. Arlington, VA (Crystal City Metro Stop) Room 522 Call-In
1-800-320-4330 PIN: (b)(6)

Start: Tue 3/22/2011 2:00 PM
End: Tue 3/22/2011 4:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Collins, Richard

Required Attendees: (b)(6)

(b)(6)

When: Tuesday, March 22, 2011 2:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada). Where: 1800 S. Bell St. Arlington, VA (Crystal City Metro Stop) Room 522 Call-In 1-800-320-4330 PIN: (b)(6) Note: The GMT offset above does not reflect daylight saving time adjustments.

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Opening remarks – Don Daigler (FEMA Response), Tim Greten (FEMA Technological Hazards Division)

The agency updates are expected to proceed as follows:

- DHS/FEMA/CBP/DNDO/IP**
- NRC
- DOE/NNSA
- DOD
- DOS
- EPA
- USDA
- FDA
- CDC
- DOT

The floor will be opened for other agencies to provide updates as applicable.

Please RSVP to Tamara Owens (tamara.owens1@dhs.gov) and Rick Collins (richard.collins@dhs.gov), or the contact name if an alternate will be attending for your agency.

Federal Radiological Preparedness Coordinating Committee (FRPCC) Meeting Minutes –

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

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

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

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

Department of State:

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

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

DOE:

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

USDA:

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

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

CDC:

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

FEMA IMAT-East:

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

NRC:

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

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

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

FBI:

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

- Capable of providing

DOD:

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

EPA:

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

FDA:

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

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

NOAA

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

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

Miscellaneous

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

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

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

From: Peter Johnston <Peter.Johnston@arpansa.gov.au>
Sent: Friday, March 18, 2011 5:59 PM
To: Edward.LAZO@oecd.org; amcgarry@rpii.ie; patrick.smeesters@fanc.fgov.be; kaare.ulbak@sis.dk; schneider@cepn.asso.fr; jean-francois.lecomte@irsn.fr; ck@nuke.hacettepe.edu.tr; suzuki51@mext.go.jp; shandala@srcibph.ru; apanfilov@uyrb.faae.ru; toshihiko.kamada@mofa.go.jp; perez@who.int; masa.takahashi@cao.go.jp; Milligan, Patricia; bruno.cessac@irsn.fr; david.duchesne@hc-sc.gc.ca; David Tredinnick; p.hedemann@dekom.dk; david.cancio@ciemat.es; jose.gutierrez@ciemat.es; tomoho.yamada@cao.go.jp; ian.robinson@hse.gsi.gov.uk; johannes.hammer@ensi.ch; boyd.mike@epa.gov; carvalho@itn.pt; wweiss@bfs.de; shizuyo.kusumi@cao.go.jp; ali.ghovanlou@hq.doe.gov; kazsakai@nirs.go.jp; saito-minoru@jnes.go.jp; andre.jouve@ec.europa.eu; wim.molhoek@minvrom.nl; antonis@eeae.nrcps.ariadne-t.gr; r.martincic@iaea.org; j.p.auclair@hc-sc.gc.ca; jerzy.mietelski@ifj.edu.pl; olivier.isnard@irsn.fr; brian.ahier@hc-sc.gc.ca; koblinger@haea.gov.hu; (b)(6) rafal.frac@oecd-poland.org; kobayashi.hirohide@jaea.go.jp; clive.williams@environment-agency.gov.uk; carrz@who.int; jldelgado@cnsns.gob.mx; caroline.purvis@cnsccsn.gc.ca; sci.sec@icrp.org; ikumi.moriguchi@oecd.org; eduard.metke@ujd.gov.sk; jpgc@csn.es; keith.binfield@defra.gsi.gov.uk; delphine.xicluna@asn.fr; ronald.rusch@ensi.ch; werner.zeller@bag.admin.ch; pcam@enresa.es; karla.petrova@subj.cz; dominique.rauber@babs.admin.ch; saigusa@nirs.go.jp; Jim Scott; kr.kase@stanfordalumni.org; yuinoue@mext.go.jp; okuno.hiroshi@jaea.go.jp; kanamori.masashi@jaea.go.jp; patrick.breuskin@ms.etat.lu; duranova@vuje.sk; decair.sara@epa.gov; d.h.byron@iaea.org; adriana.sokolikova@ujd.gov.sk; yamamoto.kazuya@jaea.go.jp; f.baciu@iaea.org; delphine.caamano@asn.fr; ysumika@mext.go.jp; ciska.zuur@minvrom.nl; smm@gr.is; carlos.sancho@ciemat.es; khour@eeae.gr; ingemar.lund@ssm.se; augustin.janssens@ec.europa.eu; pedrovaz@itn.pt; ksmith@rpii.ie; jill.meara@hpa.org.uk; joerg.brauns@areva.com; ogoshi-harushige@meti.go.jp; acortes@cnsns.gob.mx; benjamin.stanford@oecd.org; malcolm.c.rick@unscear.org; olli.vilkamo@stuk.fi; stuart.prosser@arpansa.gov.au; helmut.fischer@lebensministerium.at; krajewski@clor.waw.pl; johannes.kuhlen@bmu.bund.de; vera.starostova@subj.cz; jmmc@csn.es; peter.hughes@hse.gsi.gov.uk; mike.griffiths@rimnet.gsi.gov.uk; paolo.zeppa@isprambiente.it; lynn.hubbard@ssm.se; nina.cernohlavek@ages.at; rvr@csn.es; sandra.little@hse.gsi.gov.uk; florence.gallay@asn.fr; salvatore.frullani@iss.infn.it; sychang@kaeri.re.kr; luciano.bologna@apat.it; sandro.sandri@enea.it; dana.drabova@subj.cz; mrm@csn.es; florence.menetrier@cea.fr; hschoi@kins.re.kr; axel.boettger@bmu.bund.de; e.amaral@iaea.org; miroslav.pinak@oecd.org; barbara.vokal-nemec@gov.si; uichiro.yoshimura@oecd.org; jean-luc.godet@asn.fr; Bush-Goddard, Stephanie; halilburcin.okyar@oecd.org; finn.ugletveit@nrpa.no; hannele.aaltonen@stuk.fi; stig.husin@ssm.se; sep@gr.is; ann.heinrich@nnsa.doe.gov; vesa.tanner@ec.europa.eu; peter.hofer@lebensministerium.at; fgering@bfs.de; maekawa-yukinori@meti.go.jp; cmcmahon@rpii.ie; christian.vandecasteele@fanc.fgov.be; nakata@nustec.or.jp; isabelle.mehl-auget@asn.fr; fukumoto.masahiro@jaea.go.jp; gunnar.saxebol@nrpa.no; kevin.bundy@cnsccsn.gc.ca; sisko.salomaa@stuk.fi; alexandru.rodna@cncan.ro; hans.riotte@oecd.org; iharikan@taek.gov.tr; niu@ilo.org; kristiina.korhonen@oecd.org; shannounf@who.int; hefin.griffiths@ansto.gov.au; hiroito@mext.go.jp; hkataoka@mext.go.jp; alexandra.brasat@amb-roumanie.fr; macsuga@haea.gov.hu;

To: hoe@brs.dk; vince.mcclelland@nnsa.doe.gov; Stephen Solomon;
bob.powell@hse.gsi.gov.uk; kevin.jackson@ec.europa.eu;
krzysztof.dabrowski@paa.gov.pl; jette.bijlholt@minvrom.nl; kmiyamo@mext.go.jp
Subject: RE: Updated Decision and Recommendation Questionnaire [SEC=UNCLASSIFIED]

Ted

Australia has made recommendations. These are being updated 6 hourly.
These are most easily described by reference to our website.
<http://www.arpansa.gov.au/>

Peter

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Australian Radiation Protection and Nuclear Safety Agency
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From: Edward.LAZO@oecd.org [mailto:Edward.LAZO@oecd.org]

Sent: Saturday, 19 March 2011 4:30 AM

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Subject: Updated Decision and Recommendation Questionnaire

Dear Colleagues,

Sorry to clog your e-mails again, but I forgot to add the Irish response to my table, which I now have done!

Ted

Important: This email (including any attachments) is intended only for the use of the addressee and may contain confidential and / or privileged information. If you are not the intended addressee, you are prohibited from relaying on, distributing, disclosing, copying or in any other way using any information in this email. If you have received this email in error, please notify the sender immediately and erase all copies.

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Australian Radiation Protection And Nuclear Safety Agency

From: MacKinney, John A <John.Mackinney@dhs.gov>
Sent: Friday, March 18, 2011 5:27 PM
To: Bentz, Julie A.
Cc: Stern, Warren; Zabko, John; Chavez, Richard; Dickerson, Bradley; Ortiz, Louis; Silver, Mariko; Green, Stephen W; Milligan, Patricia; boyd.mike@epa.gov; Joseph, Leonard; Brinsfield, Kathryn; SIMMONS, PATRICK
Subject: NRC Reg. Guide 1.86
Attachments: NRC Reg Guide 1.86.pdf

Julie, this is NRC Reg Guide 1.86. This is industry standard for release of materials off-site from licensed facilities (I cc'd Trish Milligan and Mike Boyd in case they want to opine). You'll note this guide is over 30 yrs old, a testimony to how suitable it is. It is detection-based, meaning, these levels, e.g. 5,000 dpm/100cm² for beta/gamma, are essentially at detection levels for typical hand held instruments and normal scanning procedures. CBP follows a protocol for goods that trigger an alarm, typically set for some level above background. This is essential from an operational perspective for moving large quantities of goods through a port. Criteria like 1.86 are more suited for clearing material a unit at a time, and a detected level (say, above 5,000 dpm) would send something for decon and rescreening. Years ago I performed a risk analysis on 1.86 to see what the risks were from release of materials off-site for reuse and recycling under these criteria - result, veery low. I'll note that the situation here is a little different from that in which one would use the RDD/IND Operational Guidelines developed under our old RDD/IND Working Group (DOE maintains these), because it's not a serious contamination incident in the US for which emergency measures are needed. I would recommend using 1.86 (me, not an official DHS position), for use on aircraft or other objects not subject to CBP procedures where a decision is needed to clear or decon. As I mentioned on the call, there are no laws or regs that apply to Japanese reactor fallout on an aircraft. But if industry wants a USG recommendation, I think this is best.

I think I got all this correct; my colleagues will correct me if I missed something.

Cheers
John MacKinney
Director, Nuclear and Radiological Policy Office of Policy U.S. Department of Homeland Security
202-447-3885

(b)(6)

CA/166



U.S. ATOMIC ENERGY COMMISSION

June 1974

REGULATORY GUIDE

DIRECTORATE OF REGULATORY STANDARDS

REGULATORY GUIDE 1.86

TERMINATION OF OPERATING LICENSES FOR NUCLEAR REACTORS

A. INTRODUCTION

Section 50.51, "Duration of license, renewal," of 10 CFR Part 50, "Licensing of Production and Utilization Facilities," requires that each license to operate a production and utilization facility be issued for a specified duration. Upon expiration of the specified period, the license may be either renewed or terminated by the Commission. Section 50.82, "Applications for termination of licenses," specifies the requirements that must be satisfied to terminate an operating license, including the requirement that the dismantlement of the facility and disposal of the component parts not be inimical to the common defense and security or to the health and safety of the public. This guide describes methods and procedures considered acceptable by the Regulatory staff for the termination of operating licenses for nuclear reactors. The Advisory Committee on Reactor Safeguards has been consulted concerning this guide and has concurred in the regulatory position.

B. DISCUSSION

When a licensee decides to terminate his nuclear reactor operating license, he may, as a first step in the process, request that his operating license be amended to restrict him to possess but not operate the facility. The advantage to the licensee of converting to such a possession-only license is reduced surveillance requirements in that periodic surveillance of equipment important to the safety of reactor operation is no longer required. Once this possession-only license is issued, reactor operation is not permitted. Other activities related to cessation of operations such as unloading fuel from the reactor and placing it in storage (either onsite or offsite) may be continued.

A licensee having a possession-only license must retain, with the Part 50 license, authorization for special nuclear material (10 CFR Part 70, "Special Nuclear Material"), byproduct material (10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material"), and source material (10 CFR Part 40, "Licensing of Source Material"), until the fuel, radioactive components, and sources are removed from the facility. Appropriate administrative controls and facility requirements are imposed by the Part 50 license and the technical specifications to assure that proper surveillance is performed and that the reactor facility is maintained in a safe condition and not operated.

A possession-only license permits various options and procedures for decommissioning, such as mothballing, entombment, or dismantling. The requirements imposed depend on the option selected.

Section 50.82 provides that the licensee may dismantle and dispose of the component parts of a nuclear reactor in accordance with existing regulations. For research reactors and critical facilities, this has usually meant the disassembly of a reactor and its shipment offsite, sometimes to another appropriately licensed organization for further use. The site from which a reactor has been removed must be decontaminated, as necessary, and inspected by the Commission to determine whether unrestricted access can be approved. In the case of nuclear power reactors, dismantling has usually been accomplished by shipping fuel offsite, making the reactor inoperable, and disposing of some of the radioactive components.

Radioactive components may be either shipped offsite for burial at an authorized burial ground or secured

USAEC REGULATORY GUIDES

Regulatory Guides are issued to describe and make available to the public methods acceptable to the AEC Regulatory staff of implementing specific parts of the Commission's regulations, to delineate techniques used by the staff in evaluating specific problems or postulated accidents, or to provide guidance to applicants. Regulatory Guides are not substitutes for regulations and compliance with them is not required. Methods and solutions different from those set out in the guides will be acceptable if they provide a basis for the findings requisite to the issuance or continuance of a permit or license by the Commission.

Published guides will be revised periodically, as appropriate, to accommodate comments and to reflect new information or experience.

Copies of published guides may be obtained by request indicating the divisions desired to the U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Director of Regulatory Standards. Comments and suggestions for improvements in these guides are encouraged and should be sent to the Secretary of the Commission, U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Chief, Public Proceedings Staff.

The guides are issued in the following ten broad divisions:

1. Power Reactors
2. Research and Test Reactors
3. Fuels and Materials Facilities
4. Environmental and Siting
5. Materials and Plant Protection
6. Products
7. Transportation
8. Occupational Health
9. Antitrust Review
10. General

on the site. Those radioactive materials remaining on the site must be isolated from the public by physical barriers or other means to prevent public access to hazardous levels of radiation. Surveillance is necessary to assure the long term integrity of the barriers. The amount of surveillance required depends upon (1) the potential hazard to the health and safety of the public from radioactive material remaining on the site and (2) the integrity of the physical barriers. Before areas may be released for unrestricted use, they must have been decontaminated or the radioactivity must have decayed to less than prescribed limits (Table I).

The hazard associated with the retired facility is evaluated by considering the amount and type of remaining contamination, the degree of confinement of the remaining radioactive materials, the physical security provided by the confinement, the susceptibility to release of radiation as a result of natural phenomena, and the duration of required surveillance.

C. REGULATORY POSITION

1. APPLICATION FOR A LICENSE TO POSSESS BUT NOT OPERATE (POSSESSION-ONLY LICENSE)

A request to amend an operating license to a possession-only license should be made to the Director of Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545. The request should include the following information:

- a. A description of the current status of the facility.
- b. A description of measures that will be taken to prevent criticality or reactivity changes and to minimize releases of radioactivity from the facility.
- c. Any proposed changes to the technical specifications that reflect the possession-only facility status and the necessary disassembly/retirement activities to be performed.
- d. A safety analysis of both the activities to be accomplished and the proposed changes to the technical specifications.
- e. An inventory of activated materials and their location in the facility.

2. ALTERNATIVES FOR REACTOR RETIREMENT

Four alternatives for retirement of nuclear reactor facilities are considered acceptable by the Regulatory staff. These are:

a. **Mothballing.** Mothballing of a nuclear reactor facility consists of putting the facility in a state of protective storage. In general, the facility may be left intact except that all fuel assemblies and the radioactive

fluids and waste should be removed from the site. Adequate radiation monitoring, environmental surveillance, and appropriate security procedures should be established under a possession-only license to ensure that the health and safety of the public is not endangered.

b. **In-Place Entombment.** In-place entombment consists of sealing all the remaining highly radioactive or contaminated components (e.g., the pressure vessel and reactor internals) within a structure integral with the biological shield after having all fuel assemblies, radioactive fluids and wastes, and certain selected components shipped offsite. The structure should provide integrity over the period of time in which significant quantities (greater than Table I levels) of radioactivity remain with the material in the entombment. An appropriate and continuing surveillance program should be established under a possession-only license.

c. **Removal of Radioactive Components and Dismantling.** All fuel assemblies, radioactive fluids and waste, and other materials having activities above accepted unrestricted activity levels (Table I) should be removed from the site. The facility owner may then have unrestricted use of the site with no requirement for a license. If the facility owner so desires, the remainder of the reactor facility may be dismantled and all vestiges removed and disposed of.

d. **Conversion to a New Nuclear System or a Fossil Fuel System.** This alternative, which applies only to nuclear power plants, utilizes the existing turbine system with a new steam supply system. The original nuclear steam supply system should be separated from the electric generating system and disposed of in accordance with one of the previous three retirement alternatives.

3. SURVEILLANCE AND SECURITY FOR THE RETIREMENT ALTERNATIVES WHOSE FINAL STATUS REQUIRES A POSSESSION-ONLY LICENSE

A facility which has been licensed under a possession-only license may contain a significant amount of radioactivity in the form of activated and contaminated hardware and structural materials. Surveillance and commensurate security should be provided to assure that the public health and safety are not endangered.

a. Physical security to prevent inadvertent exposure of personnel should be provided by multiple locked barriers. The presence of these barriers should make it extremely difficult for an unauthorized person to gain access to areas where radiation or contamination levels exceed those specified in Regulatory Position C.4. To prevent inadvertent exposure, radiation areas above 5 mR/hr, such as near the activated primary system of a power plant, should be appropriately marked and should not be accessible except by cutting of welded closures or the disassembly and removal of substantial structures

and/or shielding material. Means such as a remote-readout intrusion alarm system should be provided to indicate to designated personnel when a physical barrier is penetrated. Security personnel that provide access control to the facility may be used instead of the physical barriers and the intrusion alarm systems.

b. The physical barriers to unauthorized entrance into the facility, e.g., fences, buildings, welded doors, and access openings, should be inspected at least quarterly to assure that these barriers have not deteriorated and that locks and locking apparatus are intact.

c. A facility radiation survey should be performed at least quarterly to verify that no radioactive material is escaping or being transported through the containment barriers in the facility. Sampling should be done along the most probable path by which radioactive material such as that stored in the inner containment regions could be transported to the outer regions of the facility and ultimately to the environs.

d. An environmental radiation survey should be performed at least semiannually to verify that no significant amounts of radiation have been released to the environment from the facility. Samples such as soil, vegetation, and water should be taken at locations for which statistical data has been established during reactor operations.

e. A site representative should be designated to be responsible for controlling authorized access into and movement within the facility.

f. Administrative procedures should be established for the notification and reporting of abnormal occurrences such as (1) the entrance of an unauthorized person or persons into the facility and (2) a significant change in the radiation or contamination levels in the facility or the offsite environment.

g. The following reports should be made:

(1) An annual report to the Director of Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545, describing the results of the environmental and facility radiation surveys, the status of the facility, and an evaluation of the performance of security and surveillance measures.

(2) An abnormal occurrence report to the Regulatory Operations Regional Office by telephone within 24 hours of discovery of an abnormal occurrence. The abnormal occurrence will also be reported in the annual report described in the preceding item.

h. Records or logs relative to the following items should be kept and retained until the license is terminated, after which they may be stored with other plant records:

- (1) Environmental surveys;
- (2) Facility radiation surveys,
- (3) Inspections of the physical barriers, and
- (4) Abnormal occurrences.

4. DECONTAMINATION FOR RELEASE FOR UNRESTRICTED USE

If it is desired to terminate a license and to eliminate any further surveillance requirements, the facility should be sufficiently decontaminated to prevent risk to the public health and safety. After the decontamination is satisfactorily accomplished and the site inspected by the Commission, the Commission may authorize the license to be terminated and the facility abandoned or released for unrestricted use. The licensee should perform the decontamination using the following guidelines:

a. The licensee should make a reasonable effort to eliminate residual contamination.

b. No covering should be applied to radioactive surfaces of equipment or structures by paint, plating, or other covering material until it is known that contamination levels (determined by a survey and documented) are below the limits specified in Table I. In addition, a reasonable effort should be made (and documented) to further minimize contamination prior to any such covering.

c. The radioactivity of the interior surfaces of pipes, drain lines, or ductwork should be determined by making measurements at all traps and other appropriate access points, provided contamination at these locations is likely to be representative of contamination on the interior of the pipes, drain lines, or ductwork. Surfaces of premises, equipment, or scrap which are likely to be contaminated but are of such size, construction, or location as to make the surface inaccessible for purposes of measurement should be assumed to be contaminated in excess of the permissible radiation limits.

d. Upon request, the Commission may authorize a licensee to relinquish possession or control of premises, equipment, or scrap having surfaces contaminated in excess of the limits specified. This may include, but is not limited to, special circumstances such as the transfer of premises to another licensed organization that will continue to work with radioactive materials. Requests for such authorization should provide:

(1) Detailed, specific information describing the premises, equipment, scrap, and radioactive contaminants and the nature, extent, and degree of residual surface contamination.

(2) A detailed health and safety analysis indicating that the residual amounts of materials on surface areas, together with other considerations such as the prospective use of the premises, equipment, or scrap, are unlikely to result in an unreasonable risk to the health and safety of the public.

e. Prior to release of the premises for unrestricted use, the licensee should make a comprehensive radiation survey establishing that contamination is within the limits specified in Table I. A survey report should be filed with the Director of Licensing, U.S. Atomic Energy Commission, Washington, D.C. 20545, with a copy to the Director of the Regulatory Operations Regional Office having jurisdiction. The report should be filed at least 30 days prior to the planned date of abandonment. The survey report should:

- (1) Identify the premises;
- (2) Show that reasonable effort has been made to reduce residual contamination to as low as practicable levels;
- (3) Describe the scope of the survey and the general procedures followed; and
- (4) State the finding of the survey in units specified in Table I.

After review of the report, the Commission may inspect the facilities to confirm the survey prior to granting approval for abandonment.

5. REACTOR RETIREMENT PROCEDURES

As indicated in Regulatory Position C.2, several alternatives are acceptable for reactor facility retirement. If minor disassembly or "mothballing" is planned, this could be done by the existing operating and maintenance procedures under the license in effect. Any planned actions involving an unreviewed safety question

or a change in the technical specifications should be reviewed and approved in accordance with the requirements of 10 CFR §50.59.

If major structural changes to radioactive components of the facility are planned, such as removal of the pressure vessel or major components of the primary system, a dismantlement plan including the information required by §50.82 should be submitted to the Commission. A dismantlement plan should be submitted for all the alternatives of Regulatory Position C.2 except mothballing. However, minor disassembly activities may still be performed in the absence of such a plan, provided they are permitted by existing operating and maintenance procedures. A dismantlement plan should include the following:

- a. A description of the ultimate status of the facility
- b. A description of the dismantling activities and the precautions to be taken.
- c. A safety analysis of the dismantling activities including any effluents which may be released.
- d. A safety analysis of the facility in its ultimate status.

Upon satisfactory review and approval of the dismantling plan, a dismantling order is issued by the Commission in accordance with §50.82. When dismantling is completed and the Commission has been notified by letter, the appropriate Regulatory Operations Regional Office inspects the facility and verifies completion in accordance with the dismantlement plan. If residual radiation levels do not exceed the values in Table I, the Commission may terminate the license. If these levels are exceeded, the licensee retains the possession-only license under which the dismantling activities have been conducted or, as an alternative, may make application to the State (if an Agreement State) for a byproduct materials license.

TABLE I
ACCEPTABLE SURFACE CONTAMINATION LEVELS

NUCLIDE ^a	AVERAGE ^{b c}	MAXIMUM ^{b d}	REMOVABLE ^{b e}
U-nat, U-235, U-238, and associated decay products	5,000 dpm α /100 cm ²	15,000 dpm α /100 cm ²	1,000 dpm α /100 cm ²
Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	100 dpm/100 cm ²	300 dpm/100 cm ²	20 dpm/100 cm ²
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1000 dpm/100 cm ²	3000 dpm/100 cm ²	200 dpm/100 cm ²
Beta-gamma emitters (nuclides with decay modes other than alpha emission or spontaneous fission) except Sr-90 and others noted above.	5000 dpm β - γ /100 cm ²	15,000 dpm β - γ /100 cm ²	1000 dpm β - γ /100 cm ²

^aWhere surface contamination by both alpha- and beta-gamma-emitting nuclides exists, the limits established for alpha- and beta-gamma-emitting nuclides should apply independently.

^bAs used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

^cMeasurements of average contaminant should not be averaged over more than 1 square meter. For objects of less surface area, the average should be derived for each such object.

^dThe maximum contamination level applies to an area of not more than 100 cm².

^eThe amount of removable radioactive material per 100 cm² of surface area should be determined by wiping that area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of known efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be reduced proportionally and the entire surface should be wiped.

From: Milligan, Patricia
Sent: Friday, March 18, 2011 5:26 PM
To: Nelson, Robert
Subject: slightly revised edition
Attachments: NRC QA (2).doc

Hi Bob
Use this version please.

CA/167

Q. Why did the NRC recommend evacuation out to 50 miles for American citizens in Japan when they would only recommend a 10 mile evacuation in the United States?

There are two emergency planning zones, a 10 mile EPZ for plume exposure and a 50 mile EPZ for food exposure. The 10 mile emergency planning zone is the area that was established as a basis for planning because the projected doses from most accident sequences would not exceed the Environmental Protection Agency protective action dose guidelines (1-5 rem) at 10 miles. However the 10 mile EPZ was always considered a basis for emergency planning that could be expanded if the situation warranted. The situation in Japan, with four reactors experiencing exceptional difficulties simultaneously, led to the decision to expand the evacuation beyond the 10 mile radius.

From: Milligan, Patricia
Sent: Friday, March 18, 2011 5:03 PM
To: Leeds, Eric
Subject: Fw: NRC vsEPA

Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Milligan, Patricia
To: MacKinney, John A <John.Mackinney@dhs.gov>
Sent: Fri Mar 18 10:35:50 2011
Subject: RE: NRC vsEPA

(b)(5)

Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
MS T B46M
Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: MacKinney, John A [John.Mackinney@dhs.gov]
Sent: Friday, March 18, 2011 10:02 AM
To: Milligan, Patricia
Subject: Fw: NRC vsEPA

Trish, what do you think of this?

John MacKinney
Director, Nuclear and Radiological Policy
U.S. Department of Homeland Security

CA/168

From: Schwab, Margo [mailto:Margo_Schwab@omb.eop.gov]
Sent: Friday, March 18, 2011 09:50 AM
To: Milligan, Patricia <Patricia.Milligan@nrc.gov>; MacKinney, John A <John.Mackinney@dhs.gov>
Subject: FW: NRC vsEPA

Inside EPA

NRC Warning On Japan Nuclear Accident Raise Doubts On EPA Guidelines

Posted: March 17, 2011

Nuclear Regulatory Commission (NRC) calls for Americans in Japan to take extra precautions to prevent radiation exposure are raising questions about EPA's corresponding guidelines for domestic nuclear power plant disasters and are adding to existing concerns about the agency's limited role in the Japanese crisis.

NRC on March 16 issued a statement urging Americans in Japan to evacuate if they were within 50 miles of the ailing Fukushima reactors.

But EPA's manual of protective action guides (PAGs) for nuclear incidents -- which the agency published in 1992 -- calls for only a 10-mile emergency planning zone if a similar nuclear power plant disaster occurred in the U.S. Similarly, the NRC and the Federal Emergency Management Agency (FEMA) only require nuclear power plant operators to develop evacuation plans for a 10-mile area surrounding their plants.

NRC's recommendation for a wider evacuation area for Americans in Japan is underscoring environmentalists' long-standing argument that EPA's PAGs and the NRC requirements are inadequate, activists say. "NRC should not be making different statements for Americans abroad than for Americans at home," Ed Lyman, of the activist group Union of Concerned Scientists, said during a March 17 conference call on the Japan crisis.

EPA in recent years has been trying to amend the PAGs, but a draft of the proposed changes obtained by Inside EPA in 2007 also recommended a 10-mile emergency planning zone. The draft created a firestorm amongst environmentalists and some EPA and state officials for other reasons, including that it suggested cleanup and drinking water guidelines dramatically less protective than the agency's traditional regulations and guidelines.

In addition to concerns about the size of the evacuation area NRC is recommending, the fact that NRC is the federal agency making such announcements is adding to environmentalists' concerns that NRC is fulfilling a role in the crisis that EPA should be handling.

EPA traditionally relies on more stringent radiation guidelines than NRC and other federal agencies, and activists fear limiting EPA's role is part of a political maneuver designed to allow the Obama administration to continue its support for domestic nuclear power expansion.

While NRC's main responsibilities are to license and regulate domestic nuclear power plants, EPA is meant to be "the Coordinating Federal Agency for the U.S. government's response to foreign nuclear accidents," according to information long available on the agency's website. Further, the Nuclear/Radiological Incident Annex to the federal government's National Response Framework says EPA is the lead agency in dealing with foreign nuclear incidents, except in "certain areas of the coastal zone" that would be handled by the Coast Guard.

An EPA spokesman did not respond to multiple requests for comment, but EPA quietly posted a statement on its website March 15 saying that, as the NRC "has said, we do not expect to see radiation at harmful levels reaching the U.S. from damaged Japanese nuclear power plants."

Environmentalists' concerns about EPA's role come as the Obama administration has agreed to a request from Sens. Barbara Boxer (D-CA) and Thomas Carper (D-DE) to review the ability of domestic nuclear facilities to withstand natural disasters.

"Any time there's a significant event like this anywhere in the world, or even something like this in the United States, we're going to take a look at what happened, we're going to do a systematic and a methodical review of the information, and if we need to make changes to our program we'll make changes to our program," NRC Chairman Greg Jaczko told reporters at the White House March 17.

EPA Support For NRC 'Outrageous'

An environmentalist calls EPA's endorsement of NRC's position that radiation is unlikely to reach the U.S. at harmful levels "outrageous" given that EPA's "official position for decades [has been] that there is no safe level of" radiation. In addition, the EPA statement does not make a distinction between short-term harms, such as radiation sickness and deaths, and long-term harms like latent cancers, the second activist notes.

"Are they misleading people by merely saying that no radiation at levels sufficient to produce acute radiation syndrome will reach here?" the activist asks. "They know perfectly well the cloud of radiation is so intense that if it reaches the U.S. there will be cancers."

That EPA is quietly endorsing NRC's position is, in the second activists' view, worse than if EPA had made no statement at all, because it suggests a precedent under which EPA is willing -- during such nuclear incidents -- to defer to the NRC, which relies on significantly less stringent radiation standards than EPA.

The activist notes that in a March 15 statement, NRC suggests that radiation dose limits as high as 1,000 millirem to the entire body and 5,000 millirem to the thyroid are acceptable. While EPA's PAGs suggest similar guidelines in emergency situations, such levels would "certainly not be acceptable in normal times," the activist, says, noting that EPA, under its uranium fuel cycle rules, normally does not permit exposures from nuclear power plants above 25 millirem for the entire body and 75 millirem for the thyroid.

In addition, environmentalists continue to be frustrated by a lack of available data from EPA and other federal agencies regarding levels of radiation approaching U.S. soil. EPA says in its March 15 statement that it is conducting monitoring to collect such data and that the data is publicly available, but agency officials have not explained how to access the data. -- Douglas P. Guarino

From: Milligan, Patricia
Sent: Friday, March 18, 2011 1:47 PM
To: Leeds, Eric
Subject: RE: Plan

(b)(5)

From: Leeds, Eric
Sent: Friday, March 18, 2011 1:32 PM
To: Milligan, Patricia
Subject: RE: Plan

OUT-standing stuff. Thanks so much for sharing Trish. We are going to be second guessed for some of our decisions forever. It's so unfortunate. Hope you're hanging in there!

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

From: Milligan, Patricia
Sent: Friday, March 18, 2011 9:19 AM
To: Leeds, Eric
Subject: Interesting insightd Fw: Plan
Importance: High

Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Mecher, Carter E. (b)(6)
To: Milligan, Patricia
Sent: Thu Mar 17 19:56:13 2011
Subject: RE: Plan

(b)(5)

CA 109

(b)(5)

(b)(5)

(b)(5)

From: Mecher, Carter E.
Sent: Thursday, March 17, 2011 3:24 PM
To: 'Patricia.Milligan@nrc.gov'
Subject: FW: Plan

Patricia, I would like to introduce myself. I work on the White House National Security Staff and am involved in the response to the disaster in Japan. We are very impressed with the messaging document you and Vincent developed. Vincent is coming this afternoon to meet with us. I would like to chat with you if you have any time today. Look forward to speaking with you.

Carter Mecher, M.D.
Director Medical Preparedness Policy
White House National Security Staff
Office: 202-456-2288
Cell: (b)(6)

(b)(6)

From: Vincent Covello (b)(6)
Sent: Tuesday, March 15, 2011 7:14 PM
To: Mecher, Carter E.
Subject: Plan

Hi Carter,

I enjoyed talking with you today.

I finish my work on Thursday in no later than 2PM. I am working in the DC suburbs (New Carrollton). I believe I can be in downtown DC by 3:30 (and perhaps earlier if I finish work earlier and run into little traffic).

Also, as promised, here is the contact information for my colleague at NRC.

Patricia A. Milligan, CHP, RPh

Sr. Technical Advisor - Preparedness & Response

Office of Nuclear Security and Incident Response

U.S. Nuclear Regulatory Commission

MS T3 B46M

Washington DC 20555

Office: 301-415-2223

Cell: (b)(6)

Best regards,

Vincent

From: "Mecher, Carter E." (b)(6)
To: "vincentcovello@ix.netcom.com" <vincentcovello@ix.netcom.com>
Sent: Tue, March 15, 2011 4:11:14 PM
Subject: Plan on coming over Thurs

We need to set a time--need to check.

From: Milligan, Patricia
Sent: Friday, March 18, 2011 12:45 PM
To: Mecher, Carter E.
Subject: RE: NSS Health Effects Working Group conference call tomorrow

Sorry I would have loved to have been on this call but I was in an another meeting.

From: Mecher, Carter E. [(b)(6)]
Sent: Friday, March 18, 2011 10:05 AM
To: Milligan, Patricia
Cc: Hepburn, Matthew
Subject: FW: NSS Health Effects Working Group conference call tomorrow

Would you like to join this call at 11AM today?

From: Hepburn, Matthew
Sent: Thursday, March 17, 2011 7:12 PM
To: 'Alexander.Garza@dhs.gov'; Bar-Shalom, Tali; Beck, Nancy; Bhowmik, Rachana; Block, Michael R.; Boots, Michael J.; 'Bradley.dickerson@hq.dhs.gov'; 'Brinsfield, Kathryn'; Buffa, Nikki; Cashin, Charles L.; Coleman, CNorman (HHS/ASPR/OPEO); Deborah.Wilber@nnsa.doe.gov; dietrich.debbie@epamail.epa.gov; Dolan, Edward M.; Fitzpatrick, Michael A.; Hrdina, Chad (HHS/ASPR/OPP); 'John.Taylor2@fda.hhs.gov'; Kamoie, Brian E.; Kern, Dab; Kevin.Hanretta@va.gov; Khan, Ali S. (CDC/OPHPR/OD); Kim, Paul; Laura.J.Valero@faa.dot.gov; Lisa Kaplowitz (lisa.kaplowitz@hhs.gov); Lurie, Nicole (HHS/ASPR/IO); lynn.slepski@dot.gov; MacKinney, John A; Maddux, Sheryl - USDA; Malanoski, Margaret A.; Mecher, Carter E.; Mhamburg1@fda.hhs.gov; Molly Muldoon (molly.muldoon@fda.hhs.gov); monica.medina@noaa.gov; Prescott, Jeffrey; Reed, Richard A.; 'Richard.Hatchett@hhs.gov'; sed2@cdc.gov; Veal.Lee@epamail.epa.gov
Subject: NSS Health Effects Working Group conference call tomorrow

All,

[(b)(5)]

We look forward to the discussion tomorrow.

Matthew Hepburn, M.D.
Director, Medical Preparedness Policy
White House National Security Staff
202-456-1307 (o)

[(b)(6)] (f)
[(b)(6)]

CA/170

Health Effects Working Group

**Telephone Conference
11:00 a.m. – 12:00 p.m.**

March 18, 2011

Bridge: 202-395-6392

Passcode: 483 6537

Agenda

- | | | |
|---|--------|---------------|
| 1. Situation Update | 10 min | NSS |
| 2. Health guidance documents | 10 min | NSS |
| 3. Potassium iodide update | 10 min | HHS |
| 4. Food safety update | 10 min | FDA/USDA/NOAA |
| 5. Radiation issues with inbound passengers | 10 min | DHS/HHS |
| 6. Recap/Due Outs | 10 min | NSS |



AMS Measurements

◆ Ops Summary

- DOE Team flew two concurrent missions using military C-12 and UH-1 aircraft.
 - C-12 aircraft flew serpentine pattern north and south of the reactors at an altitude of 1000 ft.
 - UH-1 helo flew a serpentine pattern 50 miles to the north and northwest of Toyko at an altitude of 500 feet.

◆ Plot interpretation

- Areas exceeding EPA Emergency Phase PAGs are shown in red and orange.
- C-12 data is presented as exposure rate 1 meter from the ground at the time the measurements occurred.
- All measured exposure rates are assumed to be due to ground deposition. This is a conservative estimate because some of the measured dose is airborne.

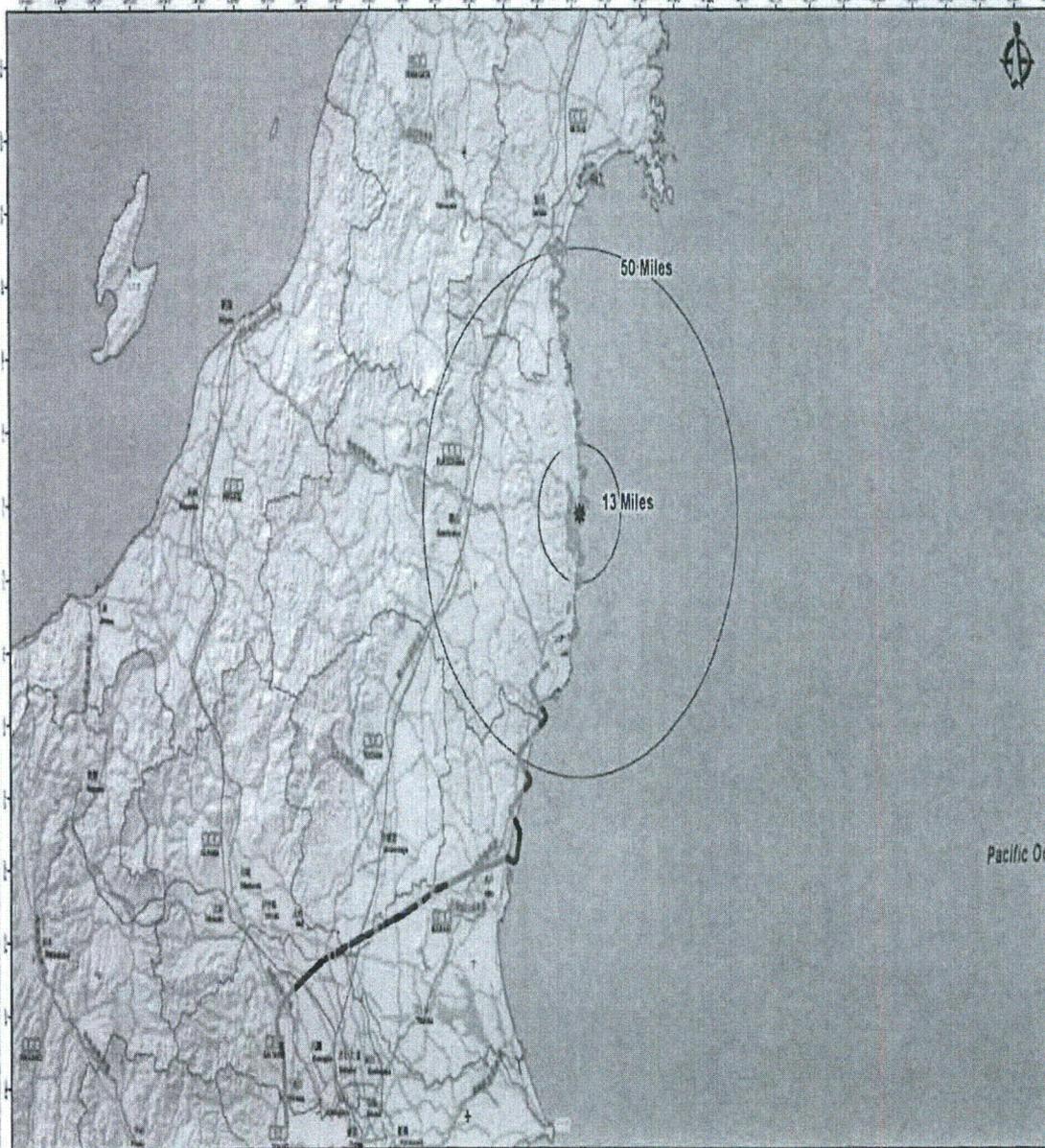


~~Official Use Only~~

Aerial Monitoring Results

Exposure Rate

FUKUSHIMA DAICHI JAPAN



* FUKUSHIMA DAICHI

C-12 Aerial Data

Exposure Rate (mR/hr)

- 0.01
- 0.02 - 0.10
- 0.11 - 1.00
- 1.01 - 10.00
- 10.01 - 20.00
- 20.01 - 32.48

Technical Considerations and Notes:

- This product is a computer-processed image based upon the assumption that all material is deposited along the ground.
- Spatial gaps occur in some areas and should be noted.
- This product aligns with previously established 12 mile protective action zone.
- Caution should be used when consulting aerial measurements to ground based measurements and activities in specific locations.

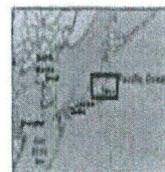
Not For Public Distribution

C-12 Nominal Altitude at 1000 ft Above Ground Level
Flight Information:
Estimated Area From 1800 Sq Mi

This map was produced by the Geographic Information Systems Department at NSA's Remote Sensing Laboratory (RSL) at Nellis AFB, Las Vegas, Nevada. HSP Data 3107, ESRI Vector Street Map, and CHMT databases were used for map generation.

RSL map identification number is 0817201_02aerialCoverage.mxd

1:800,000



Map created on 3/17/2011 5:29:13 AM PST
Check for revision in 12 hours

~~Official Use Only~~

NNSA Consequence Management Home Team
Contact (702) 794 - 1665

~~Official Use Only~~

~~Official Use Only~~

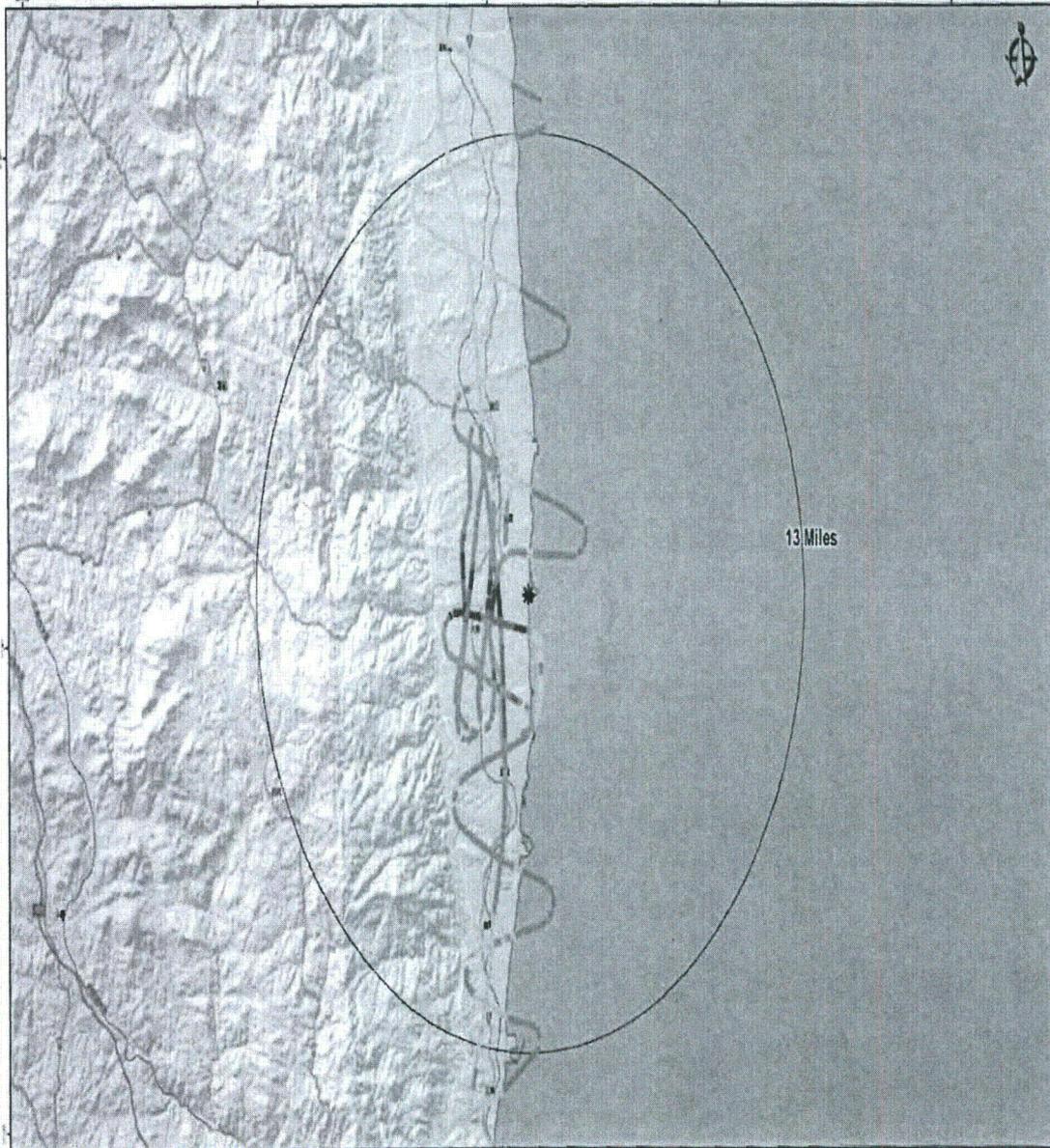


Official Use Only

Aerial Monitoring Results

Exposure Rate

FUKUSHIMA DAICHI
JAPAN



* FUKUSHIMA DAICHI

C-12 Aerial Data

Exposure Rate (mR/hr)

- 0.01
- 0.02 - 0.10
- 0.11 - 1.00
- 1.01 - 10.00
- 10.01 - 20.00
- 20.01 - 32.48

Technical Considerations and Notes:

- This product is a conservative estimate based upon the assumption that all material is deposited along the ground.
- Based upon current environmental conditions, the product aligns with previously established 15-day protective action zone.
- Caution should be used when comparing aerial measurements to ground based measurements and activities at specific locations.

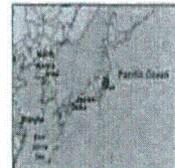
Not For Public Distribution

C-12 Nominal Altitude at 1000 ft Above Ground Level
Flight parameters:
Estimated Area Flown 1800 Sq Mi

This map was produced by the Geographic Information Systems department of NNSA's Remote Sensing Laboratory (RSL) at Nellis AFB, Las Vegas, Nevada. NPS Data 2007, ESRI World Street Map, and CIA-1 satellite were used for map generation.

RSL map identification number is
0317201_PlanViewResults.mxd

1:120,000



Map created on 3/17/2011 5:33:41 AM PST
Check for revision in 12 hours

Official Use Only

NNSA Consequence Management Home Team
Contact (702) 784 - 1666

Official Use Only

Official Use Only



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Conclusions

- ◆ A conservative assessment of these measurements indicates that as of 17 March 2011:
 - Emergency Phase PAGs are not exceeded beyond 5 miles to the north and south of the accident site
 - Evacuation and shelter areas established by the Government of Japan are adequate for current conditions
 - US evacuation guidance is sufficient and conservative

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Next steps

- ◆ Analysis of the helicopter data is on-going. Preliminary analysis indicates that the radiological deposition extending 50 miles north from Tokyo is near background.
- ◆ DOE (CM Home Team) is in the process of converting these measurements to a 4-day dose
- ◆ Additional flights are planned this evening to characterize areas further west of the accident site

~~Official Use Only~~

From: Dion, Jeanne
Sent: Friday, March 18, 2011 10:58 AM
To: Milligan, Patricia
Cc: Howe, Allen
Subject: Comm brief support- re Potential Consequences

Allen,
RES coordinated with Kathy Brock in the PMT- overview slide sent to Chris Gratton at 10:30 am today.

Patricia,
The Op Center PMT suggested you be on deck to answer questions regarding potential consequence in Japan/US during the brief.

Thanks,
Jeanne
251-7482

From: Milligan, Patricia
Sent: Friday, March 18, 2011 12:55 AM
To: Dion, Jeanne
Subject: FW: Commission brief March 21.docx

EP bullet and talking points

ca/171

- The emergency preparedness planning basis for nuclear power plants is valid.

NRC continues to conduct studies to determine the vulnerability of nuclear power plants and the adequacy of licensee programs to protect public health and safety. Whether the initiating event is a severe earthquake, a terrorist based event, or a nuclear accident, the EP planning basis provides reasonable assurance that the public health and safety will be protected. EP plans have always been based on a range of postulated events that would result in a radiological release, including the most severe.

To facilitate a preplanned strategy for protective actions during an emergency, there are two emergency planning zones (EPZs) around each nuclear power plant. The exact size and shape of each EPZ is a result of detailed planning which includes consideration of the specific conditions at each site, unique geographical features of the area, and demographic information.

This preplanned strategy for an EPZ provides a substantial basis to support activity beyond the planning zone in the extremely unlikely event it would be needed.

From: Perrin.Alan@epamail.epa.gov
Sent: Thursday, March 17, 2011 2:16 PM
To: McDermott, Brian; charles.miller1@cdc.hhs.gov; CHP@epamail.epa.gov; Daniel.Blumenthal@nnsa.doe.gov; Liles.Darrell@epamail.epa.gov; David.Bowman@nnsa.doe.gov; James.Kish@dhs.gov; Schumann.Jean@epamail.epa.gov; Cardarelli.John@epamail.epa.gov; john.mackinney@dhs.gov; Mjones.Mark@epamail.epa.gov; norman.coleman@nih.hhs.gov; Milligan, Patricia; Hudson.Scott@epamail.epa.gov; Timothy.Greten@dhs.gov; Peake.Tom@epamail.epa.gov; Veal.Lee@epamail.epa.gov; Salo.Earl@epamail.epa.gov; Edwards.Jonathan@epamail.epa.gov; tyner.lee@epamail.epa.gov; Nanko.Lisa@epamail.epa.gov
Subject: Follow-up: 3/17 Re-entry paper discussion

All,

(b)(5)

- Don't forget the due date is March 23 for comments!

Thanks, Alan

Deputy Director | Radiation Protection Division | USEPA office (202) 343-9775
perrin.alan@epa.gov

bb (b)(6)

CA/172

From: Milligan, Patricia
Sent: Thursday, March 17, 2011 2:02 PM
To: (b)(6)
Subject: Fw: Overview of Japanese Event (Meeting Slides)
Attachments: Staff Slides for March 21 Meeting (Japanese Event) (2).pptx

Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Thorpe, April
To: Scott, Michael; Bajwa, Chris; Milligan, Patricia
Sent: Thu Mar 17 13:59:42 2011
Subject: Overview of Japanese Event (Meeting Slides)

Good Day:

Attached is a completed copy of meeting slides regarding the Japanese Event.

If you should have any questions, please feel free to contact me at your earliest convenience.

Thank you,

April R. Thorpe

*Contract Secretary
Region II Plant Licensing Branches
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
Phone 301-415-2024 Fax 301-415-1222
April.Thorpe@nrc.gov*

CA/173



Overview of Japanese Event and U.S. Response

Bill Borchardt

Executive Director for Operations

March 21, 2011

Agenda

- **Event Overview**
- **Immediate NRC Response**
- **Continuing NRC Response**
- **Assessment of Domestic Reactor Safety**
- **Planned NRC Activities**
- **Impact on Current NRC Activities**

Event Overview

- **Discuss initiating events**
- **Current status of reactors**
- **Current status of spent fuel pools**

Immediate NRC Response

- **Placed Operations Center in monitoring mode**
- **Sent 2 NRC experts to Japan on March 11th**
- **Consulted with U.S. Embassy**
- **Sent 8 more NRC personnel on March 14th**
- **Active outreach to stakeholders (Congressional Staffs, etc)**

Continuing NRC Response

- **Keep Operations Center manned 24/7**
- **Support NRC personnel in Japan, including rotations as necessary**
- **Evaluate need for generic communication to licensees**
- **Provide assistance as requested**

Potential Consequences

- **Release estimates from Japanese event**
- **Plume tracking**
- **Consequences for the U.S.**

Assessment of Domestic Reactor Safety

- **Design basis is to cope with natural disasters expected for their locale**
- **All reactors must be able to cope with station blackout for a designated time period**
- **Plans exist to cope with Beyond-Design-Basis events (Severe Accident Management Guidelines, B.5.b plans for terrorist attacks)**

Assessment of Domestic Reactor Safety (Cont.)

- **INPO and industry will respond to assist a licensee**
- **Improvements have been made since initial licensing**
- **U.S. plants continue to be safe**

Planned NRC Activities

- **Consider how to evaluate lessons learned**
- **Review panels may be a joint Federal effort**
- **Lessons learned and recommendations will be developed**
- **Regulatory actions will be considered**

Impact on Current NRC Activities

- **Communication activities have increased**
- **Certain licensing actions will be reviewed**
- **Routine meetings will continue as scheduled**
- **License renewals will continue as scheduled**

Subject: Update: FRPCC Meeting (Earthquake/Nuclear Power Plant issues discussion) - Thursday, March 17

Location: 1800 S. Bell St. Arlington, VA (Crystal City Metro Stop) Room 923 Call In: 1-800-320-4330 PIN: (b)(6)

Start: Thu 3/17/2011 2:00 PM
End: Thu 3/17/2011 4:00 PM

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Greten, Timothy

Required Attendees: 'Owens, Tamara'; 'alan.remick@nnsa.doe.gov'; 'albert.mongeon@noaa.gov'; 'Andrew.wallo@hq.doe.gov'; 'Anthony DeFelice'; 'Barbara.stunder@noaa.gov'; 'Bernard.Bogdan@ic.fbi.gov'; 'Zaidel, Bernice'; Blue, Charles; 'brad.leissa@fda.hhs.gov'; Hill, Brittain; 'bruce.young@med.va.gov'; 'Gorman, Chad'; 'Charles Miller'; 'Colleen O'Laughlin'; Conklin, Craig; 'Daniel Blumenthal, NNSA'; 'Danny McClung'; 'david.bowman@nnsa.doe.gov'; Davis, Bruce; 'dean.mccauley@gsa.gov'; 'Decair.sara@epamail.epa.gov'; 'Daigler, Donald'; 'McGuire, Edward P'; 'Elaine_wolff@ios.doi.gov'; 'ella.mcneil@em.doe.gov'; 'george.alexander@hhs.gov'; 'Gordon.s.cleveland@aphis.usda.gov'; Greenlaw, Pamela; Haugan, Greg; 'Kish, James'; 'james.williams@dot.gov'; 'Jean Schumann'; 'Jessica Wieder'; 'John Jensen'; 'Jonathan Edwards'; 'Jonathan.Bratt@orise.orau.gov'; 'Katherine.wallace@va.gov'; 'Kathryn Snead'; 'Katinka Podmaniczky'; 'kenagyWD@state.gov'; 'Kenneth.inn@nist.gov'; 'Broockerd, Larry'; 'Lawrence K. Zevin'; 'Lee Nickel'; 'Lee Veal'; 'lisa.karam@nist.gov'; 'Lodwick.jeffrey@dol.gov'; 'Lukas McMichael'; MacKinney, John A; 'Major James Ross'; (b)(6) mark.paese@Noaa.gov; 'Michael Collins'; 'Michael Howe'; 'Michael Noska'; 'mosser.jennifer@epa.gov'; 'Nate McMichael'; 'Page, Christopher'; Milligan, Patricia; 'Paul Ward'; 'paul.kim@med.va.gov'; Ponikvar, Donald (CTR); (b)(6) Collins, Richard; 'Richard_Tinker@ios.doi.gov'; 'Ruth McBurney'; 'Stephen.Domotor@eh.doe.gov'; 'Steven Clay'; 'steven.fine@noaa.gov'; 'Sue Smith'; 'Greten, Timothy'; 'Tupin.Edward@epa.gov'; 'unterweger@nist.gov'; 'Quinn, Vanessa'; Gough, Wade LCDR

Optional Attendees: Page, Christopher; 'MacKinney, John A'; Howe, Michael; Ward, Paul; 'Greenlaw, Pamela'; 'McClung, Danny'; Broockerd, Larry; 'Unterweger, Michael P.'; 'Jessica Wieder/DC/USEPA/US'; Zaidel, Bernice; McGuire, Edward; Collins, Richard; McCarroll, Janis; 'Brooks, Marc'; 'Amanda L. Stewart (CTR)'; Daigler, Donald; Stevenson, Bill; 'Gordon S Cleveland/MD/APHIS/USDA'; 'Starke, Patrick'; Crawford, Sean; Passow, Richard; 'Young, Bruce'; Rice, John ; Bruns, Ingrid; Webster, William; King, William; Passow, Richard

When: Thursday, March 17, 2011 2:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada). Where: 1800 S. Bell St. Arlington, VA (Crystal City Metro Stop) Room 923 Call In: 1-800-320-4330 PIN: (b)(6) Note: The GMT offset above does not reflect daylight saving time adjustments.

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CA/174

No need to respond to this update

FYI: Several STATE Emergency Preparedness folks (members of CRCPD leadership) will be on the line today—this isn't exclusively Federal folks. I've encouraged them to share what issues they are encountering at the state level, along with info they can provide. This will be a useful perspective.

Second—I'm verifying we have enough call-in lines—I know a number of folks are calling in—should the call register full, wait a few minutes and call in.

Thanks!

Tim

Good evening, everyone!

I've spoken to many of you one on one during conference calls or individually in the days after Japan's tragedy. I know many of you are actively deployed/involved in your agency's response and communication efforts associated with this tragedy. In addition, we are all receiving questions centering on what would happen if the United States experienced this earthquake.

During Thursday's meeting/conference call, we will ask each Agency to briefly summarize what nuclear-power plant related actions they've taken/plan to take, or communications they have made or planned to make, about:

- Activities taken because of the tsunami threat to the U.S. west coast last Friday
- Support given to Japan to help with their nuclear power plant emergency
- Monitoring the status of the Japanese plants
- Messaging efforts discussing how the Japanese nuclear power plant emergency might affect the U.S., and what would happen if we had this situation arise here.

The intention is to quickly bring other FRPCC members up to speed on your agency's status and plans, and more importantly to seek help from or offer information to other FRPCC members. We will be focused on events of the last few days, and will defer other FRPCC business to future meetings.

Please RSVP to Tamara Owens (tamara.owens1@dhs.gov) and Timothy Greten (timothy.greten@dhs.gov) if you can attend, or if an alternate will be attending for your agency.

Look forward to talking Thursday, be it in person or on the phone. If a matter needs urgent attention, please don't hesitate to reach out before then.

Thanks!

Tim

Timothy A. Greten, PMP
Technological Hazards Division Deputy Director/
Federal Radiological Preparedness Coordination Committee Executive Secretariat
FEMA National Preparedness Directorate
Department of Homeland Security
1800 South Bell St.
Arlington, VA, 22202
timothy.greten@dhs.gov
office: (202) 646-3907
cell: (b)(6)

From: Holahan, Patricia
Sent: Thursday, March 17, 2011 12:01 PM
To: Lubinski, John
Subject: RE: PMT Director Deputy - Rev 1

John

I was just told this morning that they want me to support the ET Protective Measures so Cyndi Jones has replaced me as PMT director.

Thanks, Trish

From: Lubinski, John
Sent: Wednesday, March 16, 2011 4:05 PM
To: Cool, Donald; Reis, Terrence; Holahan, Patricia; Holahan, Vincent; Milligan, Patricia; Sullivan, Randy; Tappert, John; Lui, Christiana; Gibson, Kathy; Coe, Doug
Subject: PMT Director Deputy - Rev 1

Thanks for the quick responses. I have made a revision to account for some conflicts that people have identified. These are included in **bold**.

Please let me know by noon tomorrow if ok. I feel very comfortable with the first 4 days so if a problem let me know asap.

CA/175

Shift	3/19 Sat	3/20 Sun	3/21 Mon	3/22 Tues	3/23 Wed	3/24 Thurs	3/25 Fri
7a-3p	Lubinski	Lubinski	Lubinski	Lubinski	Reis	Reis	Reis
3p-11p	Cool	Cool	Cool	Cool	P Holahan	P Holahan	P Holahan
11p-7a	Gibson	Gibson	Tappert	Tappert	Sullivan	Sullivan	Sullivan

Shift	3/26	3/27	3/28	3/29	3/30	3/31	4/1
7a-3p	Reis	Cool	Cool	Reis	Reis	Sullivan	Sullivan
3p-11p	P Holahan	V Holahan	V Holahan	V Holahan	V Holahan	Reis	Cool
11p-7a	Sullivan	Tappert	Tappert	Milligan	Milligan	Lui	Lui

Shift	4/2	4/3	4/4	4/5	4/6	4/7	4/8
7a-3p	Sullivan	P Holahan	P Holahan	P Holahan	P Holahan	Coe	Coe
3p-11p	Cool	Milligan	Milligan	Milligan	Milligan	Gibson	Gibson
11p-7a	Lui	Lubinski	Lubinski	Lubinski	Lubinski	V Holahan	V Holahan

Shift	4/9
7a-3p	Coe
3p-11p	Gibson
11p-7a	V Holahan

Available Directors:

- Lubinski
- Cool
- Reis
- P Holahan
- Milligan
- Sullivan
- V Holahan
- Tappert
- Lui
- Gibson
- Coe

Subject: FW: Pre-Brief for Commission Meeting
Location: Room O13D20

Start: Thu 3/17/2011 1:30 PM
End: Thu 3/17/2011 2:30 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: NRR-OWFN-13D20-15p

Importance: High

When: Thursday, March 17, 2011 1:30 PM-2:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Room O13D20

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

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

The purpose of this meeting is to discuss and finalize the Commission briefing plans for the Japan event. There are 5 bridge lines if you are unable to attend in person: 800-475-8388 Passcode (b)(6)

Thanks - Allen

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

From: NRR-OWFN-13D20-15p
Sent: Wednesday, March 16, 2011 5:06 PM
To: NRR-OWFN-13D20-15p; Howe, Allen
Subject: Pre-Brief for Commission Meeting
When: Thursday, March 17, 2011 1:30 PM-2:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Room O13D20

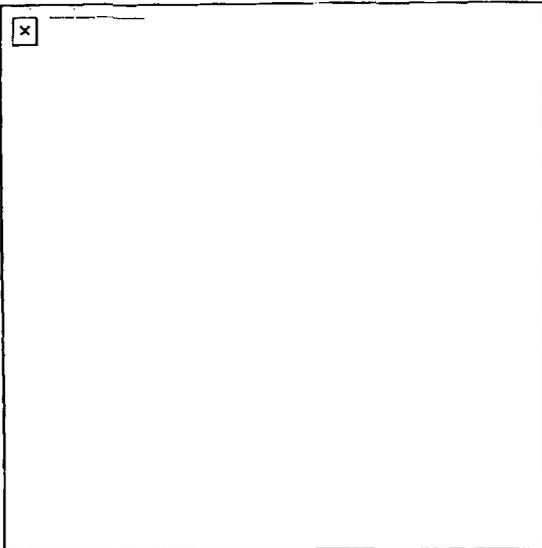
When: Thursday, March 17, 2011 1:30 PM-2:30 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Telecon: 800-475-8388 Passcode (b)(6)

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

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

This meeting was requested by Linda Cox (x.1453) and scheduled by Shari Cohen on March 16, 2011 at 5:05 p.m. (x1270).

CA/176



Your conference details are enclosed.

Meeting Information:

Leader:	MS SHARI COHEN
Phone number:	1-301-415-1257
Contact:	MOHAMED AIKU
Phone number:	1-301-415-7026
Call date:	MAR-17-2011 (Thursday)
Call time:	01:30 PM EASTERN TIME
Duration:	1 hr
Service level:	Unattended
Number of lines:	Total=6 Dialout=0 Meet Me=6 Meet Me Toll=0
Confirmation number:	6171433
Company:	FTS-NUCLEAR REGULATORY COMMISI
CRC:	

Passcodes/Pin codes:

Participant passcode:	(b)(6)
-----------------------	--------

For security reasons, the passcode will be required to join the call.

Dial in numbers:

Country	Toll Numbers	Freephone/ Toll Free Number
USA		800-475-8388

Restrictions may exist when accessing freephone/toll free numbers using a mobile telephone.

In-Conference Features:

All participants must use a touch-tone phone to participate in an Audio Conference. The following features are available for you to use on your phone during an active conference: <ul style="list-style-type: none">◆ Press *0 operator assistance (small fee may apply)◆ Press *6 mute/unmute individual line
--

Selected Conference Features:

Audio Tones

Leaders can schedule, modify or cancel a reservation by using e-Scheduling, our online reservation tool. To reschedule or cancel this reservation, click [here](#).

For additional assistance, contact customer service at 877-855-4797

The Conferencing Center would like to send you e-mail notes to keep you informed of new or enhanced products and services, conferencing tips, or special offers, etc. If you would prefer not to receive these messages, you may [unsubscribe now](#). Thank you.

From: Steven Becker, Ph.D. <SBecker@ms.soph.uab.edu>
Sent: Wednesday, March 16, 2011 5:38 PM
To: Milligan, Patricia
Subject: RE: Japan

Hang in there!

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Wednesday, March 16, 2011 4:33 PM
To: Steven Becker, Ph.D.
Subject: Re: Japan

Am going nuts. Thanks for the article. I haven't been reading the papers as I am working this event and the media has just no idea what is going on.

Sent from my NRC Blackberry

Patricia A Milligan, CHP RPh

(b)(6)

From: Steven Becker, Ph.D. <SBecker@ms.soph.uab.edu>
To: Milligan, Patricia
Sent: Wed Mar 16 14:40:07 2011
Subject: Japan

Hi Trish,

I hope you're hanging in there.

You may have already seen this (in Tuesday's Washington Post), but in case you missed it, I am attaching a copy.

Best wishes,

Steve

CA/177

The Washington Post

Fear is potent risk of Japanese nuclear crisis



KIM JAE-HWAN/ AFP/GETTY IMAGES - A Japanese resident prays in an evacuation center at Sendai city in Miyagi Prefecture on Monday.

By Rob Stein, Monday, March 14, 8:46 PM

When it comes to the nuclear power disaster unfolding in Japan, there is far more to fear than fear itself. But fear is one of the biggest — and could turn out to be the most potent — dangers.

Although radiation escaping from a nuclear power plant catastrophe can increase the risk of many cancers and other health problems, stress, anxiety and fear ended up in many ways being much greater long-term threats to health and well-being after Chernobyl, Three Mile Island and other nuclear accidents, experts said Monday.

“The psychological effects were the biggest health effects of all — by far,” said Fred Mettler, a University of New Mexico professor emeritus and one of the world’s leading authorities on radiation, who studied Chernobyl for the World Health Organization. “In the end, that’s really what affected the most people.”

Fears of contamination and anxiety about the health of those exposed and their children led to significantly elevated rates of suicidal thinking and anxiety disorders, and rates of post-traumatic stress disorder and depression about doubled, Mettler and others said.

“The effect on mental health was hugely important,” said Evelyn Bromet, a professor of psychiatry at Stony Brook University who studied the aftermath of Three Mile Island and Chernobyl. “People’s fears about getting cancer, or their children getting cancer, and family and friends dying from radiation exposure were very intense.”

In the unprecedented disaster in Japan, where an earthquake triggered a tsunami that was followed by a major nuclear power plant emergency, all those negative psychological effects are being magnified in ways that no one can predict.

“You can imagine: There was an earthquake, and I survived that. And then here comes a tsunami, and I survived that. And then comes a nuclear reactor,” said Mettler, the U.S. representative to the United Nations who studied Chernobyl. “With that kind of triple whammy, you can only imagine someone is going to be saying, ‘What did I do? What’s wrong with me?’ ”

Survivors of the bombings at Nagasaki and Hiroshima in 1945, Chernobyl and other nuclear accidents in Japan and Brazil were stigmatized by their societies, which caused discrimination that intensified emotional distress.

“After almost every radiological emergency, anyone or anything seen as or perceived as associated with the emergency came to be seen by others as tainted or something to be feared and even the object of discrimination,” said Steven Becker of the University of Alabama at Birmingham.

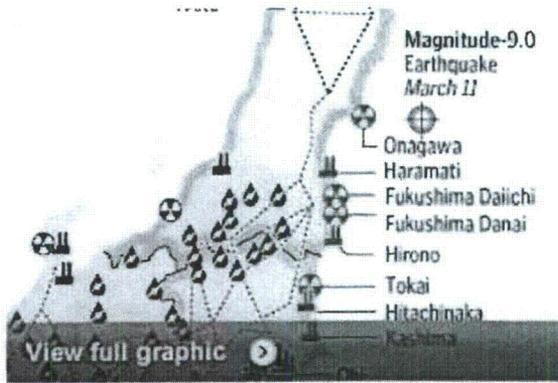
Such stigmatization can interfere with victims receiving care and recovering from the event, said Becker, who studied the psychological and social impact of a much less severe nuclear accident in 1999 in Tokaimura, Japan. In that case, people in other parts of Japan refused to buy products from that region, and travelers were turned away from hotels and asked not to use public baths and swimming pools. Similar discrimination occurred after a 1987 radiation exposure event in Goiania, Brazil.

In the long run, such incidents can negatively transform entire cultures. In the areas affected by the 1986 Chernobyl accident, a crippling sense of hopelessness set in and was passed down through generations.

“What we know from experience is the psychological footprint from a nuclear disaster can not only be massive but in many ways greater than the effect of radiation,” Becker said. “On an individual level, these range all the way from anxiety disorders, depression and substance abuse to a kind of culture of fatalism and hopelessness that has gripped the population in many areas, and it continues today, decades later.”

Among all the threats humans face today, radiation consistently ranks near the top of the list of what people fear and the emotional reaction it produces.

“As soon as we hear anything about ‘nuclear,’ our brain goes very quickly looking for danger and says, ‘Alert?’ ” said David Ropeik, an instructor at Harvard University who studies risk perception and wrote “How Risky Is It, Really? Why Our Fears Don’t Always Match the Facts.” “That’s just how we do it psychologically.”



Graphic: The state of Japan’s power grid

There are many reasons why humans fear radiation so intensely. One reason is because radiation is silent, invisible and odorless. Another is because radiation is associated with cancer, which itself is one of the most feared words. Another reason is that in accidents, as opposed to medical treatments, exposure to radiation is involuntary. Other reasons are the searing images of victims of Nagasaki and Hiroshima, a generation raised fearing Cold War-mushroom-cloud annihilation and the way radiation is portrayed by popular culture.

“In the movies and in comic books, people getting exposed to radiation turn into monsters,” said John Boice, Jr., a radiation expert at the International Epidemiology Unit in Rockville.

In fact, radiation is a far less potent carcinogen than other toxic substances. Studies of more than 80,000 survivors of the Hiroshima and Nagasaki blasts have found that about 9,000 people subsequently died of some form of cancer. But only about 500 of those cases could be attributed to the radiation exposure the people experienced.

The average amount of radiation that victims in Hiroshima and Nagasaki were exposed to would increase the risk of dying from lung cancer by about 40 percent, Boice said. Smoking a pack of cigarettes a day increases the risk of dying of lung cancer by about 400 percent.

“Radiation is a universal carcinogen, but it’s a very weak carcinogen compared to other carcinogens,” Boice said. “Even when you are exposed, it’s very unlikely you will get an adverse effect. But fear of radiation is very strong.”

steinr@washpost.com

From: Milligan, Patricia
Sent: Wednesday, March 16, 2011 10:05 AM
To: 'viy7@cdc.gov'
Subject: Re: TSA Screening Passengers

Yes pop monitoring not sure about airlines
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Grady-Erickson, Onalee (CDC/OID/NCEZID) (CTR) <viy7@cdc.gov>
To: Milligan, Patricia
Sent: Wed Mar 16 09:58:49 2011
Subject: RE: TSA Screening Passengers

Is Japan doing any screening?

Onalee Grady-Erickson, B.A. CEM
Preparedness Coordinator
Logistics Health Contractor
Centers for Disease Control and Prevention
Division of Global Migration and Quarantine
viy7@cdc.gov
Cell: (b)(6)

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Wednesday, March 16, 2011 8:05 AM
To: Grady-Erickson, Onalee (CDC/OID/NCEZID) (CTR)
Subject: Re: TSA Screening Passengers

(b)(5)

Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Grady-Erickson, Onalee (CDC/OID/NCEZID) (CTR) <viy7@cdc.gov>
To: Milligan, Patricia
Sent: Wed Mar 16 09:00:12 2011
Subject: RE: TSA Screening Passengers

(b)(5)

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Wednesday, March 16, 2011 7:54 AM
To: Grady-Erickson, Onalee (CDC/OID/NCEZID) (CTR)
Subject: Re: TSA Screening Passengers

CA/178

Haven't heard that as official. Did hear that their backscatter machines gave doses much higher than stated. Computational error. Btw this thing in japan continues to get worse

Sent from my NRC Blackberry

Patricia A Milligan, CHP RPh

(b)(6)

From: Grady-Erickson, Onalee (CDC/OID/NCEZID) (CTR) <viy7@cdc.gov>

To: Milligan, Patricia

Sent: Wed Mar 16 07:53:44 2011

Subject: TSA Screening Passengers

There is a rumor floating around on tv that TSA is screening passengers. Do you know if this is true? The rumor is that they are screening before people get on planes in the US. Which to me, makes no sense.

Let me know.

Onalee

Onalee Grady-Erickson, B.A. CEM
Preparedness Coordinator
Logistics Health Contractor
Centers for Disease Control and Prevention

Division of Global Migration and Quarantine

viy7@cdc.gov

Cell: (b)(6)

From: Sheehan, Neil
Sent: Wednesday, March 16, 2011 4:50 AM
To: Milligan, Patricia
Subject: EPA rad monitoring FAQs

EPA will be checking on any radiation releases resulting from the Japan reactor events via its RadNet monitoring system: <http://www.epa.gov/radiation/japan-faqs.html> .

GA/179

From: Milligan, Patricia
Sent: Wednesday, March 16, 2011 3:01 AM
To: Greten, Timothy
Subject: RE: Government Only FRPCC Meeting

Sorry I will miss you....as I am working the backshift at the ops center-

From: Greten, Timothy [mailto:Timothy.Greten@dhs.gov]

Sent: Tuesday, March 15, 2011 7:32 PM

To: Owens, Tamara; alan.remick@nnsa.doe.gov; albert.mongeon@noaa.gov; Andrew.wallo@hq.doe.gov; Anthony DeFelice; Barbara.stunder@noaa.gov; Bernard.Bogdan@ic.fbi.gov; Zaidel, Bernice; Blue, Charles; brad.leissa@fda.hhs.gov; Hill, Brittain; bruce.young@med.va.gov; Gorman, Chad; Charles Miller; Colleen O'Laughlin; Conklin, Craig; Daniel Blumenthal, NNSA; Danny Mcclung; david.bowman@nnsa.doe.gov; Davis, Bruce; dean.mccauley@gsa.gov; Decair.sara@epamail.epa.gov; Daigler, Donald; McGuire, Edward P; Elaine_wolff@ios.doi.gov; ella.mcneil@em.doe.gov; george.alexander@hhs.gov; Gordon.s.cleveland@aphis.usda.gov; Greenlaw, Pamela; Haugan, Greg; Kish, James; james.williams@dot.gov; Jean Schumann; Jessica Wieder; John Jensen; Jonathan Edwards; Jonathan.Bratt@orise.orau.gov; Katherine.wallace@va.gov; Kathryn Snead; Katinka Podmaniczky; kenagyWD@state.gov; Kenneth.inn@nist.gov; Broockerd, Larry; Lawrence K. Zelvin; Lee Nickel; Lee Veal; lisa.karam@nist.gov; Lodwick.jeffrey@dol.gov; Lukas McMichael; MacKinney, John A; Major James Ross; manuel.aponte@osd.mil; mark.paese@Noaa.gov; Michael Collins; Michael Howe; Michael Noska; mosser.jennifer@epa.gov; Nate McMichael; Page, Christopher; Milligan, Patricia; Paul Ward; paul.kim@med.va.gov; Ponikvar, Donald (CTR); ricardo.reyes@dtra.mil; Collins, Richard; Richard_Tinker@ios.doi.gov; Ruth McBurney; Stephen.Domotor@eh.doe.gov; Steven Clay; steven.fine@noaa.gov; Sue Smith; Greten, Timothy; Tupin.Edward@epa.gov; unterweger@nist.gov; Quinn, Vanessa; Gough, Wade LCDR

Cc: Collins, Richard

Subject: RE: Government Only FRPCC Meeting

Good evening, everyone!

A bit of follow up—

I've spoken to many of you one on one during conference calls or individually in the days after Japan's tragedy. I know many of you are actively deployed/involved in your agency's response and communication efforts associated with this tragedy. In addition, we are all receiving questions centering on what would happen if the United States experienced this earthquake.

During Thursday's meeting, we will ask each Agency to briefly summarize what nuclear-power plant related actions they've taken/plan to take, or communications they have made or planned to make, about:

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Please RSVP to Tamara Owens (tamara.owens1@dhs.gov) and Timothy Greten (timothy.greten@dhs.gov) if you can attend, or if an alternate will be attending for your agency.

Look forward to talking Thursday! If a matter needs urgent attention, please don't hesitate to reach out before then.

Thanks!

Tim

Timothy A. Greten, PMP
Technological Hazards Division Deputy Director/
Federal Radiological Preparedness Coordination Committee Executive Secretariat
FEMA National Preparedness Directorate
Department of Homeland Security
1800 South Bell St.
Arlington, VA, 22202
timothy.greten@dhs.gov
office: (202) 646-3907
cell: (b)(6)

From: Owens, Tamara [<mailto:Tamara.Owens1@dhs.gov>]

Sent: Tuesday, March 15, 2011 4:43 PM

To: alan.remick@nnsa.doe.gov; albert.mongeon@noaa.gov; Andrew.wallo@hq.doe.gov; Anthony DeFelice; Barbara.stunder@noaa.gov; Bernard.Bogdan@ic.fbi.gov; Zaidel, Bernice; Blue, Charles; brad.leissa@fda.hhs.gov; Brittain E. Hill; bruce.young@med.va.gov; Gorman, Chad; Charles Miller; Colleen O'Laughlin; Conklin, Craig; Daniel Blumenthal, NNSA; Danny McClung; david.bowman@nnsa.doe.gov; Davis, Bruce; dean.mccauley@gsa.gov; Decair.sara@epamail.epa.gov; Daigler, Donald; McGuire, Edward P; Elaine_wolff@ios.doi.gov; ella.mcneil@em.doe.gov; george.alexander@hhs.gov; Gordon.s.cleveland@aphis.usda.gov; Greenlaw, Pamela; Haugan, Greg; Kish, James; james.williams@dot.gov; Jean Schumann; Jessica Wieder; John Jensen; Jonathan Edwards; Jonathan.Bratt@orise.orau.gov; Katherine.wallace@va.gov; Kathryn Snead; Katinka Podmaniczky; kenagyWD@state.gov; Kenneth.inn@nist.gov; Broockerd, Larry; Lawrence K. Zelvin; Lee Nickel; Lee Veal; lisa.karam@nist.gov; Lodwick.jeffrey@dol.gov; Lukas McMichael; MacKinney, John A; Major James Ross; manuel.aponte@osd.mil; mark.paese@Noaa.gov; Michael Collins; Michael Howe; Michael Noska; mosser.jennifer@epa.gov; Nate McMichael; Page, Christopher; patricia.milligan@nrc.gov; Paul Ward; paul.kim@med.va.gov; Ponikvar, Donald (CTR); ricardo.reyes@dtra.mil; Collins, Richard; Richard_Tinker@ios.doi.gov; Ruth McBurney; Stephen.Domotor@eh.doe.gov; Steven Clay; steven.fine@noaa.gov; Sue Smith; Tamara Owens; Greten, Timothy; Tupin.Edward@epa.gov; unterweger@nist.gov; Quinn, Vanessa; Gough, Wade LCDR

Cc: Collins, Richard

Subject: Government Only FRPCC Meeting

There will be a government only FRPCC Meeting this Thursday, March 17th at 2:00 p.m. In this meeting, we will discuss the things we are encountering, problems we are facing and the solutions to these problems.

The meeting information is below and if you have any questions, please feel free to reach out to Tim Greten at Timothy.Greten@dhs.gov.

DATE: March 17, 2011
1800 S. Bell St.
Crystal City

TIME: 2:00-4:00pm

Room 923

Call In: 1-800-320-4330 PIN: (b)(6)

Subject: Invitation: Re-entry Paper discussion 866-299-3188, code (b)(6) (Mar 17 01:00 PM EDT in phone bridge: 866-299-3188, code (b)(6))

Location: phone bridge: 866-299-3188, code (b)(6)

Start: Thu 3/17/2011 1:00 PM

End: Thu 3/17/2011 2:00 PM

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Sara DeCair/DC/USEPA/US

Required Attendees: Alan Perrin/DC/USEPA/US; McDermott, Brian; charles.miller1@cdc.hhs.gov; CHP; Daniel.Blumenthal@nnsa.doe.gov; Darrell Liles/DC/USEPA/US; David.Bowman@nnsa.doe.gov; James.Kish@dhs.gov; Jean Schumann/DC/USEPA/US; John Cardarelli/CI/USEPA/US; john.mackinney@dhs.gov; Mark Mjones/DC/USEPA/US; norman.coleman@nih.hhs.gov; Milligan, Patricia; Scott Hudson/CI/USEPA/US; Timothy.Greten@dhs.gov; Tom Peake/DC/USEPA/US; Veal.Lee@epamail.epa.gov

Optional Attendees: Earl Salo/DC/USEPA/US; Lee Tyner/DC/USEPA/US; Lisa Nanko/DC/USEPA/US

Colleagues,

(b)(5)

Thanks
Lee

Lee B. Veal
Director, Center for Radiological Emergency Management
Radiation Protection Division
Office of Radiation and Indoor Air
Environmental Protection Agency
1310 L Street, NW
Washington DC, 20005
Mail Code: 6608J
202-343-9448

cell (b)(6)

CA/181

Colleagues,

(b)(5)

Thanks
Lee

(See attached file: Reentry and Return draft 3-14-2011.docx)

Lee B. Veal
Director, Center for Radiological Emergency Management
Radiation Protection Division
Office of Radiation and Indoor Air
Environmental Protection Agency
1310 L Street, NW
Washington DC, 20005
Mail Code: 6608J
202-343-9448
cell (b)(6)

Attachment c194309.ics(5182 bytes) cannot be converted to PDF
format.

(b)(5)

(b)(5)

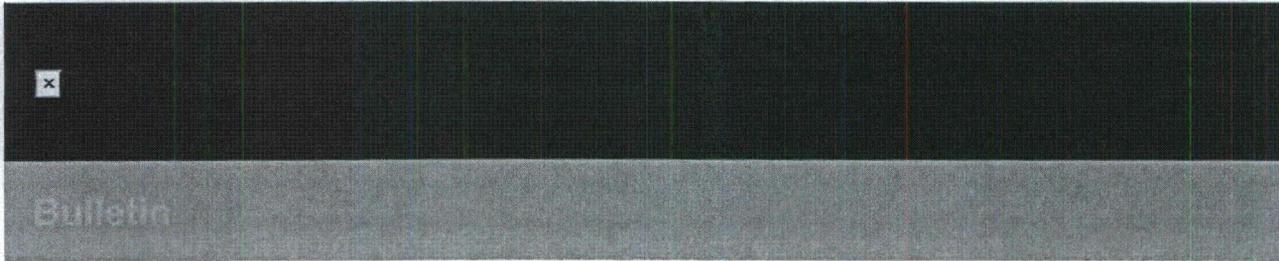
(b)(5)

(b)(5)

(b)(5)

(b)(5)

From: MarketWatch Bulletin <alerts@marketwatchmail.com>
Sent: Tuesday, March 15, 2011 6:09 PM
To: Milligan, Patricia
Subject: New fire reported at reactor 4 of Fukushima Daiichi nuclear plant in Japan

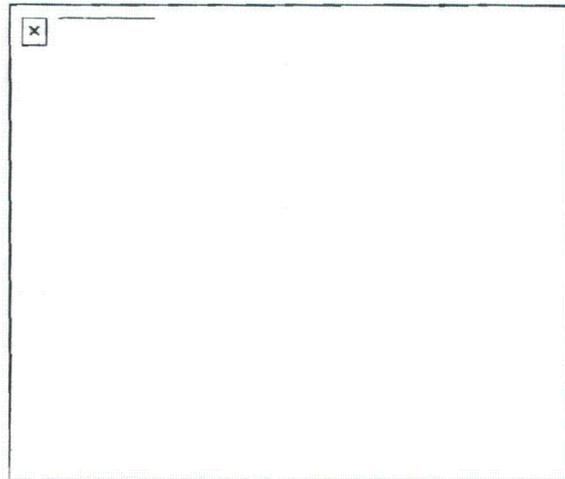


New fire reported at reactor 4 of Fukushima Daiichi nuclear plant in Japan

03/15/2011 06:05:19 PM

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MarketWatch - Attn: [Customer Service](#), 201 California St., San Francisco, CA 94111

CA/182

From: Milligan, Patricia
Sent: Tuesday, March 15, 2011 10:21 AM
To: Harrington, Holly; McDermott, Brian; Jones, Cynthia; Morris, Scott
Subject: Re: Script for internal call center

We just published the risk communication nureg with its 400 questions. We should start there first
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Harrington, Holly
To: Milligan, Patricia
Sent: Mon Mar 14 23:47:34 2011
Subject: Script for internal call center

We're anticipating we're going to start getting a lot of public calls of general anxiety/concern and we're going to start up an internal call center to take those calls from the HOOs and OPA. I've asked the protective measures chief today to get us some "scripts" that we can use. Anything you can do to facilitate that would be appreciated . . .

CA/183

From: Milligan, Patricia
Sent: Tuesday, March 15, 2011 10:26 AM
To: McDermott, Brian
Subject: Fw: Radiation Dose/Contamination Criteria for Travelers returning from Japan
Attachments: Microsoft Office PowerPoint Slide 1.jpg

Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

From: Edward.LAZO@oecd.org <Edward.LAZO@oecd.org>
To: edward.lazo@oecd.org <edward.lazo@oecd.org>; Milligan, Patricia; bruno.cessac@irsn.fr <bruno.cessac@irsn.fr>; david.duchesne@hc-sc.gc.ca <david.duchesne@hc-sc.gc.ca>; wim.molhoek@minvrom.nl <wim.molhoek@minvrom.nl>; antonis@eeae.nrps.ariadne-t.gr <antonis@eeae.nrps.ariadne-t.gr>; r.martincic@iaea.org <r.martincic@iaea.org>; j.p.auclair@hc-sc.gc.ca <j.p.auclair@hc-sc.gc.ca>; jerzy.mietelski@ifj.edu.pl <jerzy.mietelski@ifj.edu.pl>; saito-minoru@jnes.go.jp <saito-minoru@jnes.go.jp>; olivier.isnard@irsn.fr <olivier.isnard@irsn.fr>; brian.ahier@hc-sc.gc.ca <brian.ahier@hc-sc.gc.ca>; eduard.metke@ujd.gov.sk <eduard.metke@ujd.gov.sk>; jpgc@csn.es <jpgc@csn.es>; keith.binfield@defra.gsi.gov.uk <keith.binfield@defra.gsi.gov.uk>; rafal.frac@oecd-poland.org <rafal.frac@oecd-poland.org>; carrz@who.int <carrz@who.int>; delphine.xicluna@asn.fr <delphine.xicluna@asn.fr>; ronald.rusch@ensi.ch <ronald.rusch@ensi.ch>; ikumi.moriguchi@oecd.org <ikumi.moriguchi@oecd.org>; okuno.hiroshi@jaea.go.jp <okuno.hiroshi@jaea.go.jp>; kanamori.masashi@jaea.go.jp <kanamori.masashi@jaea.go.jp>; patrick.breuskin@ms.etat.lu <patrick.breuskin@ms.etat.lu>; dominique.rauber@babs.admin.ch <dominique.rauber@babs.admin.ch>; duranova@vuje.sk <duranova@vuje.sk>; decair.sara@epa.gov <decair.sara@epa.gov>; d.h.byron@iaea.org <d.h.byron@iaea.org>; adriana.sokolikova@ujd.gov.sk <adriana.sokolikova@ujd.gov.sk>; yamamoto.kazuya@jaea.go.jp <yamamoto.kazuya@jaea.go.jp>; f.baciu@iaea.org <f.baciu@iaea.org>; delphine.caamano@asn.fr <delphine.caamano@asn.fr>; ysumika@mext.go.jp <ysumika@mext.go.jp>; acortes@cnsns.gob.mx <acortes@cnsns.gob.mx>; benjamin.stanford@oecd.org <benjamin.stanford@oecd.org>; johannes.kuhlen@bmu.bund.de <johannes.kuhlen@bmu.bund.de>; vera.starostova@sujb.cz <vera.starostova@sujb.cz>; olli.vilkamo@stuk.fi <olli.vilkamo@stuk.fi>; jmmc@csn.es <jmmc@csn.es>; peter.hughes@hse.gsi.gov.uk <peter.hughes@hse.gsi.gov.uk>; mike.griffiths@rimnet.gsi.gov.uk <mike.griffiths@rimnet.gsi.gov.uk>; paolo.zeppa@isprambiente.it <paolo.zeppa@isprambiente.it>; lynn.hu bbard@ssm.se <lynn.hu bbard@ssm.se>; nina.cernohlawek@ages.at <nina.cernohlawek@ages.at>; rvr@csn.es <rvr@csn.es>; sandra.little@hse.gsi.gov.uk <sandra.little@hse.gsi.gov.uk>; florence.gallay@asn.fr <florence.gallay@asn.fr>; finn.ugletveit@nrpa.no <finn.ugletveit@nrpa.no>; hannele.aaltonen@stuk.fi <hannele.aaltonen@stuk.fi>; stig.husin@ssm.se <stig.husin@ssm.se>; sep@gr.is <sep@gr.is>; ann.heinrich@nnsa.doe.gov <ann.heinrich@nnsa.doe.gov>; vesa.tanner@ec.europa.eu <vesa.tanner@ec.europa.eu>; peter.hofer@lebensministerium.at <peter.hofer@lebensministerium.at>; fgering@bfs.de <fgering@bfs.de>; maekawa-yukinori@meti.go.jp <maekawa-yukinori@meti.go.jp>; cmcmahon@rpii.ie <cmcmahon@rpii.ie>; christian.vandecasteele@fanc.fgov.be <christian.vandecasteele@fanc.fgov.be>; nakata@nustec.or.jp <nakata@nustec.or.jp>; miroslav.pinak@oecd.org <miroslav.pinak@oecd.org>; isabelle.mehl-auget@asn.fr <isabelle.mehl-auget@asn.fr>; fukumoto.masahiro@jaea.go.jp <fukumoto.masahiro@jaea.go.jp>; halilburcin.okyar@oecd.org <halilburcin.okyar@oecd.org>; macsuga@haea.gov.hu <macsuga@haea.gov.hu>; hoe@brs.dk <hoe@brs.dk>; vince.mcclelland@nnsa.doe.gov <vince.mcclelland@nnsa.doe.gov>; stephen.solomon@arpansa.gov.au <stephen.solomon@arpansa.gov.au>; bob.powell@hse.gsi.gov.uk <bob.powell@hse.gsi.gov.uk>; kevin.jackson@ec.europa.eu <kevin.jackson@ec.europa.eu>; krzysztof.dabrowski@paa.gov.pl <krzysztof.dabrowski@paa.gov.pl>; jette.bijlholt@minvrom.nl <jette.bijlholt@minvrom.nl>; kmiyamo@mext.go.jp <kmiyamo@mext.go.jp>; alexandra.brasat@amb-roumanie.fr <alexandra.brasat@amb-roumanie.fr>
Sent: Tue Mar 15 05:36:26 2011
Subject: FW: Radiation Dose/Contamination Criteria for Travelers returning from Japan

CA/184

Dear Colleagues,

I am SURE that you are all closely in touch with all that is going on at the moment in Japan. At the risk of overloading your e-mail boxes I am forwarding this information that I received regarding work being done to prepare to receive and measure possibly contaminated people returning from Japan. The attached document comes from the UK where criteria were developed to deal with possible Po-210 contamination. The group that is sending this information around is the "Global Health Security Action Group", made up of experts generally from RP/Health ministries of the G7+Mexico countries, and I am sure that you all already know all the people on the e-mail list.

I will not be sending you information that you most likely already have, but if I come across information that may be of particular interest I may fill your e-mail boxes a bit more.

Sincerely,
Ted

From: JOURDAIN Jean-René [mailto:jean-rene.jourdain@irsn.fr]

Sent: Tuesday, March 15, 2011 06:12

To: Whitcomb, Robert C. (CDC/ONDIEH/NCEH); Mary Morrey; kunimitsu-ayano15@mhlw.go.jp; Laffan, Alison (OS); axel.boettger@bmu.bund.de; Bader, Judith (OS); brian.ahier@hc-sc.gc.ca; ccoleman@mail.nih.gov; Cristina.Nuccetelli@iss.it; Diana.Wilkinson@drdc-rddc.gc.ca; e.buglova@iaea.org; OKYAR Halil Burcin, NEA/PR; hatchettr@niaid.nih.gov; Helmut.Walerius@ec.europa.eu; Hilary.Walker@dh.gsi.gov.uk; Hillary.Boulay@drdc-rddc.gc.ca; Jack_Cornett@hc-sc.gc.ca; jean.piechowski@cea.fr; jldelgado@cnsns.gob.mx; maidmentb@niaid.nih.gov; akashi@nirs.go.jp; Marinissen, Maria Julia (OS); ViktorMeineke@bundeswehr.org; Ruth.Wilkins@hc-sc.gc.ca; LAZO Edward, NEA/PR; carrz@who.int

Cc: Lurie, Nicole (OS); Korch, George (OS/IO); Kaplowitz, Lisa (OS); Miller, Charles W. (CDC/ONDIEH/NCEH)

Subject: RE : Radiation Dose/Contamination Criteria for Travelers returning from Japan

Dear all,

The method used by our UK colleagues was based on urine measurements of Po-210. To date, we haven't clear information concerning either environmental measurements, either humain beings measurements. It is at the time I'm writing this message not possible to make any kind of dose estimation for the population. If I receive new information, I'll keep you informed.

My sincere sympathy goes to our Japanese colleagues.

Warm regards,

Jean-Rene

Jean-Rene Jourdain, Pharm.D., Ph.D.
Representative for International Partnerships and Cross-Departmental Activities
Directorate of Radiation Protection and Human Health
IRSN - French Institute for Radiological Protection and Nuclear Safety

Tel.: +33-1-58-35-87-67

Cell.: (b)(6)

Email: jean-rene.jourdain@irsn.fr

----- Message d'origine-----

De: Whitcomb, Robert C. (CDC/ONDIEH/NCEH) [mailto:byw3@cdc.gov]

Date: mar. 15/03/2011 00:54

À: 'Mary Morrey'; 'kunimitsu-ayano15@mhlw.go.jp'; Laffan, Alison (OS); 'axel.boettger@bmu.bund.de'; Bader, Judith (OS); 'brian.ahier@hc-sc.gc.ca'; 'ccoleman@mail.nih.gov'; 'Cristina.Nuccetelli@iss.it'; 'Diana.Wilkinson@drdc-rddc.gc.ca'; 'e.buglova@iaea.org'; 'HalilBurcin.OKYAR@oecd.org'; 'hatchettr@niaid.nih.gov'; 'Helmut.Walerius@ec.europa.eu';

'Hilary.Walker@dh.gsi.gov.uk'; 'Hillary.Boulay@drdc-rddc.gc.ca'; 'Jack_Cornett@hc-sc.gc.ca'; 'jean.piechowski@cea.fr';
JOURDAIN Jean-René; 'jldelgado@cnsns.gob.mx'; 'maidmentb@niaid.nih.gov'; 'akashi@nirs.go.jp'; Marinissen, Maria Julia (OS);
'ViktorMeineke@bundeswehr.org'; 'Ruth.Wilkins@hc-sc.gc.ca'; 'Edward.Lazo@oecd.org'; 'carrz@who.int'
Cc: Lurie, Nicole (OS); Korch, George (OS/IO); Kaplowitz, Lisa (OS); Miller, Charles W. (CDC/ONDIEH/NCEH)
Objet : Radiation Dose/Contamination Criteria for Travelers returning from Japan

Dear GHSI Rad/Nuc Working Group,

Beginning tomorrow, radiation experts in our country will begin developing radiation dose and contamination criteria for travelers returning to US destinations that may have detectable concentrations of external and/or internal radioactive contamination. As you also may be planning similar efforts in your countries at your international entry points, we thought it wise to coordinate this activity as we did during the Polonium incident in 2006-2007. With this concept in mind, we will suggest that we begin with the criteria established by our UK colleagues for the Polonium incident:

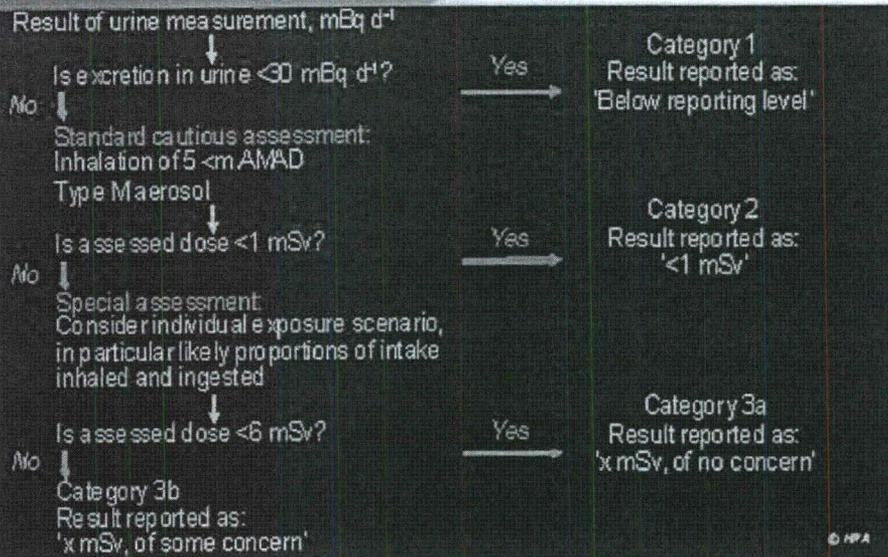
We welcome your comments on this example and look forward to our coordinated dialogue on this subject as we move forward to protect the health of our citizens potentially impacted by this unfortunate emergency.

Best wishes,

Bob

Robert C. Whitcomb, Jr., Ph.D., CHP
Radiation Studies Branch, EHHE, NCEH, CDC
4770 Buford Highway, NE (MS-F58)
Atlanta, GA 30341-3717
Telephone: 770.488.3652 Fax: 770.488.1539

Dose Assessment from ^{210}Po in Urine Samples



From: Milligan, Patricia
Sent: Saturday, March 12, 2011 7:26 PM
To: 'djallard@state.pa.us'
Subject: Re: Japan Earthquake and nuclear pwr plants

Can you say. KI to 20?
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

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

From: Allard, David <djallard@state.pa.us>
To: Milligan, Patricia
Sent: Sat Mar 12 17:55:10 2011
Subject: RE: Japan Earthquake and nuclear pwr plants

Thnx Trish, got your VM... went to grab a coffee.

Just wanted to chat about the TSA contamination surveys... "deja vous for TMI with me at Albany Med Cntr in March 1979."

You sound pooped... No need to call if you're driving or fried.

Cheers,

Your FiPA

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

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Saturday, March 12, 2011 5:44 PM
To: Allard, David
Subject: Re: Japan Earthquake and nuclear pwr plants

Just tried
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

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

From: Allard, David <djallard@state.pa.us>
To: Milligan, Patricia
Sent: Sat Mar 12 17:15:14 2011
Subject: RE: Japan Earthquake and nuclear pwr plants

Pls call me, at my desk... 717-783-5403.

Your FiPA ;)

CA/185

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

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Saturday, March 12, 2011 5:13 PM
To: Allard, David
Subject: Re: Japan Earthquake and nuclear pwr plants

I am serious
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh

(b)(6)

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

From: Allard, David <djallard@state.pa.us>
To: Milligan, Patricia
Sent: Sat Mar 12 17:11:39 2011
Subject: RE: Japan Earthquake and nuclear pwr plants

Yikes, you jest.... If real, will that be with or without the x-ray backscatter units on?! ;)

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

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Saturday, March 12, 2011 4:57 PM
To: Allard, David
Subject: Re: Japan Earthquake and nuclear pwr plants

Not to worry TSA will be doing screening for contamination. I am relieved

Sent from my NRC Blackberry Patricia A Milligan, CHP RPh (b)(6)

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

From: Allard, David <djallard@state.pa.us>
To: StateEOC, Pennsylvania <stateeoc@state.pa.us>; Krancer, Michael <mkrancer@state.pa.us>; Cannon, Glenn <glcannon@state.pa.us>; Hines, John <johines@state.pa.us>; Harris, Alisa <aliharris@state.pa.us>; Reisinger, Kenneth <kereisinge@state.pa.us>; Janati, Rich <rjanati@state.pa.us>; Maiers, Robert <rmaiers@state.pa.us>; Wagner, William <wwagner@state.pa.us>; Leib, Kerry <kleib@state.pa.us>; Tamanini, Henry <hetamanini@state.pa.us>; Brinser, Alan <abrinser@state.pa.us>; Sevison, Timothy <tsevison@state.pa.us>; Mertz, Roland <rolmertz@state.pa.us>; Shannon, Timothy J <tshannon@state.pa.us>; Moyer, Brian <brmoyer@state.pa.us>; Finn, Maria <mfinn@state.pa.us>; Repetz, John M <jrepetz@state.pa.us>; Gresh, Katherine <kagresh@state.pa.us>
Cc: McNamara, Nancy; Milligan, Patricia; Tift, Doug
Sent: Sat Mar 12 16:53:31 2011
Subject: RE: Japan Earthquake and nuclear pwr plants

Folks,

FYI, as an update, the NRC just put out the attached Press Release. [It is also copied and pasted-in below for those on blackberries right now.] As an update on the KI request from NRC... I spoke to them earlier in the afternoon, they do not believe they'll need to borrow any from the Commonwealth.

Lastly, there are many sidebar emails and calls coming into me from staff and colleagues... all info [even 2nd hand] and insight is greatly appreciated. When they come out, DEP/BRP will be reviewing any and all of the official Japan, IAEA, NRC, NEI and others after-action / lessons learned reports.

At this point, it is safe to say we [here in the States] should not be directly impacted by any radiological releases from the unfolding events with the nuclear power plants in Japan. Though it is possible we may detect very low-levels if there is a major release of fission products. Nonetheless, we will continue to monitor the situation until the plants are in cold shut-down, as well as their recovery phase.

It goes without saying, but, all the citizens of Japan affected by this huge natural and [secondary] technological disaster are in our thoughts and prayers.

- Dave

U.S. NUCLEAR REGULATORY COMMISSION
Office of Public Affairs Telephone: 301/415-8200 Washington, D.C. 20555-0001
E-mail: opa.resource@nrc.gov Site: www.nrc.gov
Blog: http://public-blog.nrc-gateway.gov

March 12, 2011 No. 11-045

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

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

"We have some of the most expert people in this field in the world working for the NRC and we stand ready to assist in any way possible," said Chairman Gregory Jaczko. The NRC has stood up its Maryland-based headquarters Operations Center since the beginning of the emergency in Japan, and is operating on a 24-hour basis. The NRC will not provide information on the status of that country's nuclear power plants.

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

USAID -- www.usaid.gov
U.S. Dept. of State -- www.state.gov
FEMA -- www.fema.gov
White House -- www.whitehouse.gov
Nuclear Energy Institute -- www.nei.org
International Atomic Energy Agency -- www.iaea.org/press/ For background information on generic operations at a boiling-water reactor, including an animated graphic, visit the NRC's website at www.nrc.gov

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

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

From: Allard, David

Sent: Saturday, March 12, 2011 1:31 PM

To: 'Doug.Tift@nrc.gov'; StateEOC, Pennsylvania

Cc: Krancer, Michael; Cannon, Glenn; Hines, John; Harris, Alisa; Reisinger, Kenneth; Janati, Rich; Maiers, Robert; Wagner, William; Leib, Kerry; Tamanini, Henry; Brinser, Alan; Sevison, Timothy; Mertz, Roland; Shannon, Timothy J; Moyer, Brian; Finn, Maria; Repetz, John M; Gresh, Katherine; 'Nancy.McNamara@nrc.gov'; 'Patricia.Milligan@nrc.gov'; Allard, David
Subject: Re: Japan Earthquake and nuclear pwr plants

Thnx Doug, great update.

EOC, pls add to log item on this issue.

Should we have any press calls, I'd suggest we note what we're doing, staying in touch with NRC, who are monitoring the situation. My previous email explained the low potential impact on US from any release of radioactivity. Lastly, we could mention we have air monitors thru out the state around our 5 PA nuclear pwr plant sites. We will watch those sample results closely in the coming weeks and months.

Dave Allard

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

From: Tift, Doug [mailto:Doug.Tift@nrc.gov]

Sent: Saturday, March 12, 2011 12:44 PM

To: Wilds, Edward <Edward.Wilds@ct.gov>; Fisher-Tyler Frieda (DHSS) <Frieda.Fisher-Tyler@state.de.us>; Janet.Chomiszak@state.de.us <Janet.Chomiszak@state.de.us>; Tom Levering <TLevering@mde.state.md.us>; Giarrusso, John (CDA) <John.Giarrusso@state.ma.us>; Douth, Kathryn <Kathryn.Douth@dos.nh.gov>; Nawoj, Mike <Mike.Nawoj@dos.nh.gov>; Paul Baldauf <Paul.Baldauf@dep.state.nj.us>; Alyse L. Peterson <alp@nyserda.org>; Allard, David; Janati, Rich; Vanags, Uldis <Uldis.Vanags@state.vt.us>; Hofmann, Sarah <Sarah.Hofmann@state.vt.us>
Cc: McNamara, Nancy <Nancy.McNamara@nrc.gov>
Subject: Japan Earthquake

All,

I wanted to pass along some information regarding the situation in Japan:

* The Nuclear Regulatory Commission has spoken with its counterpart agency in Japan, offering the assistance of U.S. technical experts. Should the Japanese want to make use of U.S. expertise, NRC staffers with extensive background in boiling water reactors are available to assist efforts in Japan.

* The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response.

* The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States.

* The NRC has regulations in place that require licensees to design their plants to withstand the effects of tsunamis. (10CFR 50, Appendix A, Criterion 2, "Design bases for protection against natural phenomenon" requires licensees to design structures, systems, and components important to safety to withstand the effects of natural phenomenon, including tsunamis.)

* Nuclear power plants are built to withstand environmental hazards, including earthquakes. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster.

* The NRC requires that safety-significant structures, systems, and components be designed to take into account the most severe natural phenomena historically reported for the site and surrounding area. The NRC then adds a margin for

error to account for the historical data's limited accuracy. In other words, U.S. nuclear power plants are designed to be safe based on historical data from the area's maximum credible earthquake. <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fs-seismic-issues.html>

The NRC has issued several press releases already: <http://pbadupws.nrc.gov/docs/ML1107/ML110700600.pdf>
<http://nrc.gov/reading-rm/doc-collections/news/2011/11-043.pdf>
<http://nrc.gov/reading-rm/doc-collections/news/2011/11-044.pdf>

Press releases are posted on our website as they are released.

We are also posting updated information on our blog: <http://public-blog.nrc-gateway.gov/>

Please let me know if you have any questions.

-Doug

Doug Tift
Regional State Liaison Officer
Office: 610-337-6918
Cell: (b)(6)

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

From: Allard, David
Sent: Saturday, March 12, 2011 11:23 AM
To: StateEOC, Pennsylvania
Cc: Krancer, Michael; Cannon, Glenn; Hines, John; Harris, Alisa; Reisinger, Kenneth; Janati, Rich; Maiers, Robert; Wagner, William; Leib, Kerry; Sevison, Timothy; Tamanini, Henry; Brinser, Alan; Shannon, Timothy J; Moyer, Brian; Finn, Maria; Repetz, John M; Gresh, Katherine; Allard, David
Subject: Nuclear Pwr Plants in Japan

Please open an EOC log item on this subject, noting:

DEP BRP has been monitoring the situation since yesterday.

Given our experience with TMI and Chernobyl, we don't expect any direct impact on USA.

We have been in contact with NRC on the situation. Yesterday NRC asked if PaDOH could loan KI back to NRC for Japan. PaDOH officials have ok'd that, but we have not had an official request.

The NRC and IAEA EOCs are monitoring the situation. I've asked NRC to put out a PR on the situation.

I emailed NRC last night, and spoke to them this morning. We have env surveillance air samplers at all nuclear pwr plants in PA, and similar set-ups are in place at all plants in the US. Thus, we can monitor with great sensitivity, any trace radioactivity that may drift west from Japan.

I have also contacted EPA. They have a real time network of real time direct gamma radiation and air samplers thru out the States. We have one in Philly and Pittsburgh. That RadNet system should also provide some assurance for the public.

I'm on the Radon booth at the Home Show, but plan to pop into work for a few minutes this afternoon to get an update on the situation.

Pls keep this log open until these plants in Japan are stable.

Thnx,

Dave Allard

David J. Allard, CHP, Director
PA Dept. of Environmental Protection
Bureau of Radiation Protection
P.O. Box 8469
Harrisburg, PA 17105-8469

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From: Milligan, Patricia
Sent: Friday, March 11, 2011 3:53 PM
To: Moyer, Brian; Allard, David
Subject: RE: NRC - may need to borrow KI from PA for Japan

Hopefully we won't need this. This is just an idea being tossed about by HHS et al. I appreciate your help and support.

From: Moyer, Brian [brmoyer@state.pa.us]
Sent: Friday, March 11, 2011 3:45 PM
To: Milligan, Patricia; Allard, David
Subject: RE: NRC - may need to borrow KI from PA for Japan

Can we discuss logistics and timing when the info is available.

Brian M. Moyer, MEP | Emergency Preparedness & Response Manager
Office of Public Health Preparedness
Pennsylvania Department of Health
130A Kline Plaza | Harrisburg, PA 17104
Phone: 717.346.0640 | Fax: 717.346.0643 | Cell (b)(6)
www.health.state.pa.us

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Be Prepared. Be Aware. Volunteer.

From: Milligan, Patricia [mailto:Patricia.Milligan@nrc.gov]
Sent: Friday, March 11, 2011 3:41 PM
To: Moyer, Brian; Allard, David
Subject: RE: NRC - may need to borrow KI from PA for Japan

that should be enough! thanks!
Patricia Milligan, CHP, RPh
Senior Technical Advisor for Preparedness & Response
Office of Nuclear Security and Incident Response
US NRC
MS T B46M
Washington, DC 20555
301-415-2223
Blackberry (b)(6)

From: Moyer, Brian [brmoyer@state.pa.us]
Sent: Friday, March 11, 2011 3:37 PM
To: Allard, David; Milligan, Patricia
Subject: RE: NRC - may need to borrow KI from PA for Japan

We have received approval to release 2.8 million tablets. Is this enough or is more needed.

Brian M. Moyer, MEP | Emergency Preparedness & Response Manager
Office of Public Health Preparedness

CA/186

Pennsylvania Department of Health
130A Kline Plaza | Harrisburg, PA 17104
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Be Prepared. Be Aware. Volunteer.*

From: Allard, David
Sent: Friday, March 11, 2011 3:36 PM
To: Moyer, Brian; Trish Milligan (Patricia.Milligan@nrc.gov)
Subject: RE: NRC - may need to borrow KI from PA for Japan
Importance: High

Thanks Brian! Keep us posted on approval and, do t-up the DGS contact.

Trish, fyi, looks like PaDOH has ~3.8M tabs... 65mg each. Stay tuned on an official ok to cut-loose. I'll be here at work for a few hours.

My contact info below...

Regards,

Dave

David J. Allard, CHP, Director
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Bureau of Radiation Protection
P.O. Box 8469
Harrisburg, PA 17105-8469

Tel: 717-783-5403 (desk)

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

r, Brian
March 11, 2011 3:31 PM
David
RE: NRC - may need to borrow KI from PA for Japan

Currently, we have approx 3,830,000 65mg tablets at the warehouse. We are waiting for final approval for release but it looks good that we will be able. I will confirm once we get the official approval. My contact info is below.

Brian M. Moyer, MEP | Emergency Preparedness & Response Manager
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Be Prepared. Be Aware. Volunteer.*

From: Allard, David
Sent: Friday, March 11, 2011 3:22 PM
To: Moyer, Brian
Subject: NRC - may need to borrow KI from PA for Japan

Brian,

As a follow-up to our call a short while ago... can you tell me how many 65 mg KI tabs you have here in the DGS warehouse in Hbg? I assume if NRC wanted to borrow them back for Japan - we'd be ok with that, after an ok from PaDOH management.

Also, if you would, give me your desk and cell phone #s. You might touch base with DGS too, and have someone available [if needed] to come in off hours and open up the warehouse... just in case if you need to retrieve that KI.

Thnx,

Dave

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

atsch, Cheryl L
March 11, 2011 2:18 PM
David
Trish Milligan NRC

At home asking about a KI issue.

I'll still put the message in your box.

Cheryl L. Miller Laatsch | Clerk Typist 2
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